

INTERNATIONAL HEALTH

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

EIGHTY-SIXTH CONGRESS

FIRST SESSION

ON

JOINT RESOLUTIONS TO ESTABLISH A NATIONAL
INSTITUTE FOR INTERNATIONAL HEALTH
AND MEDICAL RESEARCH

JULY 21, 22, 23, AUGUST 4, 5, AND 6, 1959

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INTERNATIONAL HEALTH

TUESDAY, JULY 21, 1959

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SAFETY OF THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 1334, New House Office Building, Hon. Kenneth A. Roberts (chairman of the subcommittee) presiding.

Present: Representatives Harris (chairman of the committee), Roberts, Rogers of Florida, Brock, Schenck, Devine, and Nelsen.

Mr. ROBERTS. The subcommittee will please be in order.

Because of the fact that we have many distinguished people here today to testify on this very important bill, I would like for the subcommittee to get underway as soon as possible.

This morning the Subcommittee on Health and Safety is beginning several days of hearings on Senate Joint Resolution 41, the so-called International Health or Health-for-Peace legislation.

There are a number of substantially identical bills which were introduced in the House of Representatives on this subject, and at this point in the record there will be inserted copies of Senate Joint Resolution 41; House Joint Resolution 129; superseded by House Joint Resolution 370, by Mr. Fogarty; House Joint Resolution 211, by Mr. McGovern; House Joint Resolution 237, by Mr. Thompson (New Jersey); House Joint Resolution 293, by Mr. Chipfield; House Joint Resolution 443, by Mr. Halpern, and House Joint Resolution 361, introduced by myself, and copies of the reports received from the departments and agencies on these resolutions.

(The resolutions and reports referred to are as follows:)

[S.J. Res. 41, 86th Cong., 1st sess.]

JOINT RESOLUTION To establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes

Whereas it is recognized that disease and disability are the common enemies of all nations and peoples, and that the means, methods, and techniques for combating and abating the ravages of disease and disability and for improving the health and health standards of man should be sought and shared, without regard to national boundaries and divisions; and

Whereas advances in combating and abating disease and in the positive promotion of human health can be stimulated by supporting and encouraging cooperation among scientists, research workers, and teachers on an international basis, with consequent benefit to the health of our people and of all peoples; and

Whereas there already exist tested means for international cooperation in matters relating to health, including the World Health Organization, the Pan American Health Organization, and the United Nations Children's Fund (UNICEF), with which the United States is identified and associated, and it

is highly desirable that the United States establish domestic machinery for the maximum mobilization of its health research resources, the more efficiently to cooperate with and support the research, research-training and research-planning endeavors of such international organizations: Therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That this joint resolution may be cited as the "International Health and Medical Research Act of 1959".

SEC. 2. It is the purpose of this joint resolution to advance the status of the health sciences in the United States, the health standards of the American people, and those of other countries and peoples, by cooperative endeavors in health research, research planning, and research training with the scientists, research workers, technicians, experts, and teachers of other countries; and to that end to help mobilize the health sciences in the United States as a force for peace, progress, and good will among the peoples of the world.

SEC. 3. There is hereby established in the Public Health Service, within the National Institutes of Health, the National Institute for International Health and Medical Research (hereinafter referred to as the "Institute").

SEC. 4. Subject to the supervision and direction of the Secretary of Health, Education, and Welfare (hereinafter referred to as the "Secretary"), the Surgeon General of the United States Public Health Service, through the Institute and in cooperation with the National Advisory Council for International Health and Medical Research hereinafter established, shall carry out the provisions of this joint resolution, and for such purpose may utilize, in addition to the Institute, other units of the Public Health Service and, subject to the approval of the Secretary, the Office of Vocational Rehabilitation, the Children's Bureau, and such other agencies and offices in the Department of Health, Education, and Welfare (hereinafter referred to as the "Department") as he may deem advisable.

SEC. 5. (a) There is hereby established a National Advisory Council for International Health and Medical Research (hereinafter referred to as the "Council"), consisting of the Surgeon General, who shall be Chairman, the Director of the Office of Vocational Rehabilitation or his representative, and the Chief of the Children's Bureau or his representative, who shall be ex officio members, and sixteen members appointed by the Secretary without regard to the civil service laws, twelve nominated by the Surgeon General, two nominated by the Director of the Office of Vocational Rehabilitation, and two nominated by the Chief of the Children's Bureau. The sixteen appointed members shall be leaders in the fields of health research; health sciences; teaching and training in the health sciences; and public and international affairs; and shall include, among others, leaders in fields related to the health of mothers and children and in the field of rehabilitation. Each appointed member shall hold office for a term of four years, except that (1) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (2) the terms of the members first taking office after the date of enactment of this joint resolution shall expire, as designated by the Secretary at the time of appointment, four at the end of four years after such date, four at the end of three years after such date, four at the end of two years after such date, and four at the end of one year after such date. None of the appointed members shall be eligible for reappointment until a year has elapsed since the end of his preceding term.

(b) The Council is authorized to—

(1) advise, consult with, and make recommendations to the Secretary and the Surgeon General on matters relating to the purposes and activities authorized by this joint resolution;

(2) review applications for financial grants under section 6(a) and recommend to the Surgeon General its approval of those applications which it believes show promise of making valuable contributions to carrying out the purposes of this joint resolution, and no financial grant made under the terms of this joint resolution shall be approved by the Surgeon General except after review and recommendation for approval by the Council; and

(3) review, and make recommendations to the Surgeon General with respect to, such other research projects or programs or proposals therefor, relating to the purposes of this joint resolution, as may be submitted to or initiated by it.

(c) Appointed members of the Council who are not otherwise in the employ of the United States, while attending meetings of the Council or otherwise

serving at the request of the Surgeon General, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding \$50 per diem, including travel time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

(d) (1) Any appointed member of the Council is hereby exempted, with respect to such appointment, from the operation of sections 281, 283, 284, and 1914 of title 18 of the United States Code, and section 190 of the Revised Statutes (5 U.S.C. 99), except as otherwise specified in paragraph (2) of this subsection.

(2) Such exemption shall not extend—

(A) to the receipt or payment of salary, in connection with the appointee's service as a member of the Council, from any source other than the private employer of the appointee at the time of his appointment, or

(B) during the period of such appointment, and the further period of two years after the termination thereof, to the prosecution or participation in the prosecution, by any person so appointed, of any claim against the Government involving any matter concerning which the appointee had any responsibility arising out of his appointment during the period of such appointment.

(e) Provisions shall be made by the Secretary for representatives of other Federal departments or agencies engaged in or supporting research in the sciences relating to health to be invited to meet with the Surgeon General, and, when appropriate, with the Council, to discuss programs and problems of common interest.

SEC. 6. (a) In carrying out the purposes of this joint resolution, the Surgeon General is authorized to encourage, support, promote the coordination of, and otherwise cooperate and assist in the training for, and the planning and conduct of, in foreign countries and (when deemed necessary to carry out such purpose) in the United States, research, investigations, experiments, and studies relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and impairments of mankind (including nutritional and other health deficiencies), or relating to the rehabilitation of the physically or mentally handicapped, and to these ends—

(1) make financial grants to universities, hospitals, laboratories, or other public or private institutions or agencies, or to individuals, in foreign countries or in the United States, or contract with such institutions, agencies, or individuals without regard to sections 3648 and 3709 of the Revised Statutes;

(2) make grants or loans of equipment, or of medical, biological, physical, or chemical substances or other materials, for use by such institutions, agencies, or individuals;

(3) furnish technical assistance and advice to such institutions or agencies;

(4) provide to such institutions or agencies, and pay the compensation and expenses of, scientists and experts from the United States and other countries and facilitate the interchange among foreign countries of scientists and experts (including the payment of travel and subsistence for such scientists and experts when away from their place of residence);

(5) cooperate and assist in the planning and conduct of research, research planning, and research training programs and projects by the World Health Organization and other international organizations or groups engaged in, or concerned with, research or research training endeavors in the health sciences, and, through financial grants or other appropriate means, assist in special research, research planning, or research training projects conducted by or under the auspices of such organizations where they can effectively carry out such activities contemplated by this joint resolution;

(6) encourage and support the coordination of experiments and programs of research conducted in the United States with related programs conducted abroad, by facilitating the interchange of research scientists and experts between the United States and foreign countries and among other countries who are engaged in such experiments and programs of research, including the payment of per diem compensation, subsistence, and travel for

such scientists and experts when away from their places of residence, as provided for experts and consultants in subsection (b) hereof;

(7) establish and maintain research fellowships within the National Institutes of Health and elsewhere with such allowances (including travel and subsistence expenses) as may be deemed necessary to train United States research workers, research teachers, technicians, and experts in the laboratories of other countries and to provide for the training of talented research fellows from abroad in the United States or in other countries, and, in addition, provide for such fellowships and other research training through financial grants to public and other nonprofit institutions or agencies in the United States or other countries;

(8) provide, through financial grants, loans or contracts (without regard to the provisions of sections 3648 and 3709 of the Revised Statutes), for the improvement or alteration of facilities, including the erection of temporary facilities, for research and research training purposes when necessary to carry out the purposes of this joint resolution with respect to any project;

(9) conduct research, investigations, experiments, and studies in foreign countries or in the United States;

(10) encourage and support international communication in the sciences relating to health by means of calling or cooperating in the convening, and financing or contributing to the financing of the expenses of, international scientific meetings and conferences; and provide, or arrange for the provision of, translating and other services, and issue or finance publications, leading to a more effective dissemination of relevant scientific information with respect to research conducted in the United States or foreign countries; and

(11) upon recommendation of the Council, employ such other means as he may deem necessary or appropriate for carrying out the purposes of this joint resolution.

(b) The Surgeon General is authorized, to the extent he deems it necessary to carry out the provisions of this joint resolution, (1) to employ experts and consultants or organizations thereof, as authorized by section 15 of the Act of August 2, 1946 (5 U.S.C. 55a); individuals so employed shall be entitled to compensation and allowances as provided in section 5(c) for members of the Council; and (2) to employ and make payments of compensation to aliens notwithstanding any prohibition in any other law.

(c) The Secretary is authorized to establish and fix the compensation for, within the Department (including any agency thereof), in addition to other positions for carrying out this joint resolution, not more than ten scientific, professional, and administrative positions to effectuate those activities in the Department in carrying out this joint resolution which require the services of specially qualified scientific, professional, or administrative personnel, in the same manner and subject to the same limitations as in the case of the positions authorized under section 208(g) of the Public Health Service Act.

(d) In carrying out the provisions of this joint resolution the Surgeon General is authorized to establish offices in foreign countries, for such areas as he may deem advisable, and for such purpose appropriations for carrying out this joint resolution shall be available for rental or lease outside the United States of offices, buildings, grounds, and living quarters to house personnel; maintenance, furnishings, necessary repairs, improvements, and alterations to properties owned or rented by the United States Government abroad; and costs of fuel, water, and utilities for such properties.

SEC. 7. In the exercise of his authority under the provisions of this joint resolution the Secretary shall take such steps as in his judgment are necessary or appropriate to assure that, in the administration of the program—

(a) the facilities and services of agencies and offices of the Department other than the Public Health Service are utilized to the optimum extent;

(b) provision is made for coordination of the work of, and consultation between, the Public Health Service and such other agencies and offices of the Department;

(c) in determining (within the limits of available appropriations) the relative emphasis, priorities, and fund allocations for the various areas within the overall program, appropriate weight and recognition is given to research and research-training needs in fields involving or related to rehabilitation and to maternal health and child health; and

(d) this joint resolution shall be administered consistently with the foreign policy of the United States as determined by the President and the Secretary of State.

SEC. 8. (a) There is hereby authorized to be appropriated to the Surgeon General the sum of \$50,000,000 annually, to carry out the provisions of this joint resolution. Amounts appropriated for any fiscal year and remaining unobligated at the end of such year shall be available for obligation during the next fiscal year in addition to the amounts appropriated for such next fiscal year.

(b) The Secretary is authorized to transfer, from appropriations made hereunder, to other agencies and offices of the Department utilized in carrying out this joint resolution, such amounts as the Secretary may determine to be necessary for the payment of salaries and expenses of such agencies and offices.

SEC. 9. (a) The Surgeon General is authorized to make, with the approval of the Secretary, such administrative and other regulations as he finds necessary to carry out the provisions of this joint resolution.

(b) The Surgeon General may delegate to any officer or employee of the Service such of his powers and duties under this joint resolution, except the making of regulations, as he may deem necessary or expedient.

SEC. 10. The activities authorized herein shall not extend to the support of public health, medical care, or other programs of an operational nature as contrasted with research, research planning, and research training, nor shall any of the grants herein authorized include grants for the improvement or extension of public health administration in other countries except for necessary research, research planning, and research training in the science of public health and public health administration.

SEC. 11. Nothing in this joint resolution shall be construed to repeal or restrict authority otherwise vested in the Secretary, the Surgeon General, or any other officer or agency of the Department, or in any other officer or agency of the United States.

SEC. 12. The Surgeon General shall transmit to the Secretary, for transmission to the Congress at the beginning of each regular session, a report summarizing the activities under this joint resolution and making such recommendations as he may deem appropriate. The Surgeon General shall include in his annual report a statement covering recommendations made by the Council and the disposition thereof.

Passed the Senate May 20, 1959.

Attest:

FELTON M. JOHNSTON,
Secretary.

[H.J. Res. 211, 86th Cong., 1st sess.]

JOINT RESOLUTION To establish in the Department of Health, Education, and Welfare the National Advisory Council for International Medical Research, and to establish in the Public Health Service the National Institute for International Medical Research, in order to help mobilize the efforts of medical scientists, research workers, technologists, teachers, and members of the health professions generally, in the United States and abroad, for assault upon disease, disability and the impairments of man and for the improvement of the health of man through international cooperation in research, research training, and research planning

Whereas it is recognized that disease and disability are the common enemies of all nations and peoples, and that the means, methods, and techniques for combating and abating the ravages of disease and disability and for improving the health and health standards of man should be sought and shared, without regard to national boundaries and divisions; and

Whereas advances in combating and abating disease and in the positive promotion of human health can be stimulated by supporting and encouraging cooperation among scientists, research workers, and teachers on an international basis, with consequent benefit to the health of our people and of all peoples; and

Whereas there already exist tested means for international cooperation in matters relating to health, including the World Health Organization, the Pan American Sanitary Bureau, and the United Nations International Children's Fund (UNICEF), with which the United States is identified and associated, and it is highly desirable that the United States establish domestic machinery for the maximum mobilization of its health research resources, the more efficiently to cooperate with and support the research, research-training, and research-planning endeavors of such international organizations: Therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That this joint resolution does establish the domestic machinery for such maximum mobilization of its health research resources, the more efficiently to cooperate with and support the research, research-training, and research-planning endeavors of the international organizations.

SEC. 2. The purpose of this joint resolution is:

(1) To encourage and support on an international basis studies, investigations, experiments, and research, including the conduct and planning thereof, relating to:

(A) The causes, diagnosis, treatment, control, and prevention of physical and mental diseases and other killing and crippling impairments of man.

(B) The rehabilitation of the physically handicapped, including the development and use of appliances for the mitigation of the handicaps of such individuals.

(C) The origin, nature, and solution of health problems not identifiable in terms of disease entities.

(D) Broad fields of science, including the natural and social sciences, important to or underlying disease and health problems.

(2) To encourage and support the rapid international interchange of knowledge and information concerning developments in those branches of science pertaining directly or indirectly to the prevention, diagnosis, treatment, or mitigation of disease and disability and other health and rehabilitation problems.

(3) To encourage and support, on an international basis, the training of personnel in research and research training through interchange of scientists, research workers, research fellows, technicians, experts, and teachers in research specialties not otherwise or generally provided for in the programs authorized by section 32 of the Surplus Property Act of 1944, as amended, and the United States Information and Educational Exchange Act of 1948, as amended.

(4) To encourage and cooperate with research programs undertaken by the World Health Organization and other international bodies engaged in, or concerned with, international endeavors in the health sciences, and to support such programs in cases in which such international organizations can effectively carry out activities authorized by this joint resolution.

(5) To advance the status of the health sciences in the United States, the health standards of the American people, and those of other countries and peoples, by cooperative endeavors with the scientists, research workers, technicians, experts, teachers, and practitioners of those countries in research and research training.

(6) To help mobilize the health sciences in the United States as a force for peace, progress, and good will among the various peoples and nations of the world.

SEC. 3. (a) The Secretary of Health, Education, and Welfare (hereinafter referred to in this joint resolution as the "Secretary") is authorized and directed to carry out the purposes of this joint resolution in conformity with its provisions.

(b) The Secretary may utilize, for the performance of his duties authorized by this joint resolution, the Public Health Service, including the National Institute for International Medical Research established by this joint resolution and the other National Institutes of Health, and, where appropriate, the Office of Vocational Rehabilitation, the Children's Bureau, and such other agencies and offices in the Department as he may deem desirable to carry out the functions authorized herein.

(c) The duties and functions hereby authorized shall be carried out in consultation and cooperation with the National Advisory Council for International Health Research established by this joint resolution.

SEC. 4. There is hereby established, in the Public Health Service, as a part of the National Institutes of Health, the National Institute for International Medical Research. This Institute, in cooperation with the other National Institutes, shall carry out such major duties and functions of operation and administration in connection with this joint resolution, as may be assigned by the Surgeon General, including the support of research and research training through grants, contracts and cooperative activities and the direct conduct of research in facilities outside the United States.

SEC. 5. (a) There is hereby established, in the Department of Health, Education, and Welfare, the National Advisory Council for International Medical Research (hereinafter referred to in this joint resolution as the "Council"), to

advise, consult with, and make recommendations to the Secretary or the Surgeon General or the Director of the Office of Vocational Rehabilitation, or such other officers of the Department as may be appropriate, on matters relating to the purposes and programs authorized by this joint resolution. The internal procedures of the Council shall be governed by rules and regulations adopted by the Council and approved by the Secretary.

(b) The Council shall receive reports on and review all research and research-training projects or programs undertaken, or proposed to be undertaken, pursuant to this joint resolution, and no grant, contract, or loan for any such research project or program shall be approved by the Surgeon General, the Director of the Office of Vocational Rehabilitation, or the Secretary except after review and recommendation by the Council.

(c) The Council shall consist of the Surgeon General of the Public Health Service, who shall be Chairman, a duly designated representative of the Secretary of State, and sixteen members appointed by the Secretary without regard to civil service laws. The Director of Vocational Rehabilitation shall be a member ex officio. The Secretary may appoint additional ex officio members on either a permanent or temporary basis, as desirable, but the number of such additional ex officio members shall not be greater than two at any one time. The sixteen appointed members shall be leaders in the fields of medical research, teaching and training, medical or biological science, rehabilitation, education, or public and international affairs. Eight of the sixteen shall be selected from among leading experts and authorities in the fields with which this joint resolution is concerned, with special emphasis on association with research and research training.

(d) Each appointed member of the Council shall hold office for a term of four years, except that (1) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed, shall be appointed either for the balance of that term, or for a full four-year term at the discretion of the Chairman, and (2) the terms of the members first taking office after September 30, 1958, shall expire as follows: four shall expire four years after such date; four shall expire three years after such date; four shall expire two years after such date; and four shall expire one year after such date, as designated by the Secretary at the time of appointment. None of the sixteen appointed members shall be eligible for reappointment until a year elapses since the end of his preceding term.

(e) Members of the Council, other than ex officio members and members who are officers or full-time employees of the Government, while attending conferences or meeting of their respective council or committees thereof, or while otherwise engaged in the work of the Council or of the committees thereof, upon the specific authorization of the Chairman of the Council or the Secretary, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding \$50 per diem, and shall also be entitled to receive an allowance for actual and necessary traveling and subsistence expenses while so serving away from their places of residence. This authorization for compensation and expenses shall also extend to consultants and members of special field or other committees engaged or established pursuant to section 6 of this joint resolution.

(f) The Council shall meet at the call of the Chairman or on the request of a third of its membership, but in no event less than three times during the year.

(g) Provision shall be made by the Secretary for representatives of other Federal departments or agencies engaged in medical-biological research or in international health-assistance efforts to be invited to meet with the Council, when appropriate, to discuss programs and problems of common concern.

(h) Provision shall be made by the Secretary, through the Surgeon General, for coordination of the work of and consultation, between the Council and the National Advisory Health Council, and the national advisory councils of the National Institutes of Health, and through the Director of Vocational Rehabilitation, the National Advisory Council on Vocational Rehabilitation, with respect to matters bearing on the purposes and administration of this joint resolution.

SEC. 6. The Secretary is authorized to secure, from time to time, and for such periods as he deems advisable, the assistance and advice of consultants who are technicians, experts, scholars or otherwise especially qualified in fields related to research, research training or research planning, from the United States or abroad. These experts, individually or in groups, shall advise the Secretary or the Surgeon General or the Director of Vocational Rehabilitation, or the Council, on such matters as are appropriate.

SEC. 7. The Secretary is hereby authorized to engage in the following activities:

(1) Encourage and support research, investigations and experiments by individuals, universities, hospitals, laboratories, or other public or private agencies or institutions, in countries other than the United States, relating to the cause, prevention, and methods of diagnosis and treatment of physical and mental diseases and impairments of man, referred to in paragraph (1) of section 2, by means of: the direct conduct of research in countries other than the United States, financial grants, contracts, grants or loans of equipment, and grants or loans of medical, biological, physical, or chemical substances or standards where required for research or research training, and furnishing expert personnel from the United States (including the payment of travel and subsistence for such experts when away from their places of residence).

(2) Encourage and support research, investigations and experiments conducted in countries other than the United States, related to the rehabilitation of the physically handicapped, by the means referred to in paragraph 2 hereof.

(3) Encourage and support the coordination of experiments and programs of research conducted in the United States with related programs conducted abroad, by facilitating the interchange of research scientists and experts between the United States and foreign countries who are engaged in such experiments and programs of research, including the payment of per diem compensation, subsistence and travel for such scientists and experts when away from their places of residence, as provided for consultants in section 5(e) hereof.

(4) Make grants for the improvement or alteration of facilities needed for medical research and research training, including the provision of equipment for research and training purposes.

(5) Establish and maintain research fellowships within the National Institutes of Health and elsewhere with such allowances (including travel and subsistence expenses) as may be deemed necessary to train United States research workers, research teachers, technicians, and experts in the laboratories of other countries, and to procure the assistance of talented research fellows from abroad, and, in addition, to provide for such fellowships and other research training through grants, upon recommendation of the Council, to public and other nonprofit institutions. This program of fellowships and grants shall not duplicate or replace the programs authorized under section 32 of the Surplus Property Act of 1944, as amended, and the United States Information and Educational Exchange Act of 1948, as amended.

(6) Encourage and support broad surveys of the incidence of the major diseases endemic in various parts of the world and initiate comprehensive plans for their eradication or mitigation through cooperative programs of research and research training in regard to these diseases, including research in pertinent phases of the science of public health.

(7) Support and encourage international communication in the medical and biological sciences, international scientific meetings, conferences, translation services and publications, including provision for travel funds to permit participation in such conferences.

SEC. 8. The Secretary shall keep the Secretary of State fully informed concerning the projects and programs undertaken pursuant to this joint resolution, and shall solicit and secure from him policy guidance with regard to such projects, programs, or other activities proposed to be undertaken under this joint resolution.

SEC. 9. Programs authorized by this joint resolution shall not unnecessarily duplicate those undertaken by other departments and agencies of the Government pursuant to law, nor of international organizations of which the United States is a member, and the Secretary shall take proper precaution to this end. For this and related purposes, he shall make necessary arrangements for consultation and coordination with other departments and agencies of the Government engaged in medical-biological research or in international health-assistance efforts. Nothing contained in this joint resolution shall be applied or construed to diminish the authority or responsibility of other departments and agencies in the field of international cooperation in medical or other scientific endeavors.

SEC. 10. The activities authorized herein shall not extend to the support of public health nor other programs of an operational nature as contracted with research, nor shall any of the grants herein authorized include grants for the improvement or extension of public health administration in other countries except for necessary research in the science of public health and public health administration.

SEC. 11. The Secretary shall prepare an annual report, which shall include a report from the Council, and submit it to the President, for transmittal to the Congress, summarizing the activities under this joint resolution, and making such recommendations as he, and the Council, may deem appropriate.

SEC. 12. The Secretary, or the Surgeon General, or the Director of Vocational Rehabilitation, is authorized to use the services of any member or members of the Council, and where appropriate, any member or members of the other several national advisory councils, or study sections, or committees advisory thereto of the Public Health Service, or of the Office of Vocational Rehabilitation, in connection with matters related to the administration at this joint resolution, for such periods as may be determined necessary.

SEC. 13. Any alien whom the Secretary deems it desirable to come to the United States under the terms of paragraphs (4) and (7) of section 7 of this joint resolution, who is otherwise excluded from admission into the United States by the provisions of section 212 of the Immigration and Nationality Act, may, upon certification by the Secretary, upon recommendation of the Surgeon General or the Director of Vocational Rehabilitation, as may be appropriate, be paroled into the United States by the Attorney General pursuant to the authority contained in section 212(d) (5) of such Act.

SEC. 14. There is hereby authorized to be appropriated the sum of \$50,000,000 annually, to carry out the provisions of this joint resolution. Such amount is to be apportioned as the Congress may direct to the office of the Secretary, the Public Health Service (including the National Institute for International Health and Medical Research), the Office of Vocational Rehabilitation, and other agencies in the Department of Health, Education, and Welfare as appropriate.

SEC. 15. This joint resolution shall be entitled "The International Health and Medical Research Act of 1959". Its short title shall be "The Health for Peace Act".

(NOTE.—H.J. Res. 237, by Mr. Thompson of New Jersey, and H.J. Res. 293, by Mr. Chipperfield, are identical to H.J. Res. 211.)

[H.J. Res. 361, 86th Cong., 1st sess.]

JOINT RESOLUTION To establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That this joint resolution may be cited as the "International Health and Medical Research Act of 1959".

SEC. 2. It is the purpose of this joint resolution to advance the status of the health sciences in the United States, the health standards of the American people, and those of other countries and peoples, by cooperative endeavors in health research, research planning, and research training with the scientists, research workers, technicians, experts, and teachers of other countries; and to that end to help mobilize the health sciences in the United States as a force for peace, progress, and good will among the peoples of the world.

SEC. 3. There is hereby established in the Public Health Service, within the National Institutes of Health, the National Institute for International Health and Medical Research (hereinafter referred to as the "Institute").

SEC. 4. Subject to the supervision and direction of the Secretary of Health, Education, and Welfare (hereinafter referred to as the "Secretary"), the Surgeon General of the United States Public Health Service, through the Institute and in cooperation with the National Advisory Council for International Health and Medical Research hereinafter established, shall carry out the provisions of this joint resolution, and for such purpose may utilize, in addition to the Institute, other units of the Public Health Service and, subject to the approval of the Secretary, the Office of Vocational Rehabilitation, the Children's Bureau, and such other agencies and offices in the Department of Health, Education, and Welfare (hereinafter referred to as the "Department") as he may deem advisable.

SEC. 5. (a) There is hereby established a National Advisory Council for International Health and Medical Research (hereinafter referred to as the "Council"), consisting of the Surgeon General, who shall be Chairman, the Director of the Office of Vocational Rehabilitation or his representative, and the Chief of the Children's Bureau or his representative, who shall be ex officio members, and sixteen members appointed by the Secretary without regard to the civil

service laws, twelve nominated by the Surgeon General, two nominated by the Director of the Office of Vocational Rehabilitation, and two nominated by the Chief of the Children's Bureau. The sixteen appointed members shall be leaders in the fields of health research; health sciences; teaching and training in the health sciences; and public and international affairs; and shall include, among others, leaders in fields related to the health of mothers and children and in the field of rehabilitation. Each appointed member shall hold office for a term of four years, except that (1) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (2) the terms of the members first taking office after the date of enactment of this joint resolution shall expire, as designated by the Secretary at the time of appointment, four at the end of four years after such date, four at the end of three years after such date, four at the end of two years after such date, and four at the end of one year after such date. None of the appointed members shall be eligible for reappointment until a year has elapsed since the end of his preceding term.

(b) The Council is authorized to—

(1) advise, consult with, and make recommendations to the Secretary and the Surgeon General on matters relating to the purposes and activities authorized by this joint resolution;

(2) review applications for financial grants under section 6(a) and recommend to the Surgeon General its approval of those applications which it believes show promise of making valuable contributions to carrying out the purposes of this joint resolution, and no financial grant made under the terms of this joint resolution shall be approved by the Surgeon General except after review and recommendation for approval by the Council; and

(3) review, and make recommendations to the Surgeon General with respect to, such other research projects or programs or proposals therefor, relating to the purposes of this joint resolution, as may be submitted to or initiated by it.

(c) Appointed members of the Council who are not otherwise in the employ of the United States, while attending meetings of the Council or otherwise serving at the request of the Surgeon General, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding \$50 per diem, including travel time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

(d) (1) Any appointed member of the Council is hereby exempted, with respect to such appointment, from the operation of sections 281, 283, 284, and 1914 of title 18 of the United States Code, and section 190 of the Revised Statutes (5 U.S.C. 99), except as otherwise specified in paragraph (2) of this subsection.

(2) Such exemption shall not extend—

(A) to the receipt or payment of salary, in connection with the appointee's service as a member of the Council, from any source other than the private employer of the appointee at the time of his appointment, or

(B) during the period of such appointment, and the further period of two years after the termination thereof, to the prosecution or participation in the prosecution, by any person so appointed, of any claim against the Government involving any matter concerning which the appointee had any responsibility arising out of his appointment during the period of such appointment.

(e) Provision shall be made by the Secretary for representatives of other Federal departments or agencies engaged in or supporting research in the sciences relating to health to be invited to meet with the Surgeon General, and, when appropriate, with the Council, to discuss programs and problems of common interest.

Sec. 6. (a) In carrying out the purposes of this joint resolution, the Surgeon General is authorized to encourage, support, promote the coordination of, and otherwise cooperate and assist in the training for, and the planning and conduct of, in foreign countries and (when deemed necessary to carry out such purpose) in the United States, research, investigations, experiments, and studies relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and impairments of mankind (including nutritional and other health deficiencies), or relating to the rehabilitation of the physically or mentally handicapped, and to these ends—

(1) make financial grants to universities, hospitals, laboratories, or other public or private institutions or agencies, or to individuals, in foreign countries or in the United States, or contract with such institutions, agencies, or individuals without regard to sections 3648 and 3709 of the Revised Statutes;

(2) make grants or loans of equipment, or of medical, biological, physical, or chemical substances or other materials, for use by such institutions, agencies, or individuals;

(3) furnish technical assistance and advice to such institutions or agencies;

(4) provide to such institutions or agencies, and pay the compensation and expenses of, scientists and experts from the United States and other countries and facilitate the interchange among foreign countries of scientists and experts (including the payment of travel and subsistence for such scientists and experts when away from their places of residence) :

(5) cooperate and assist in the planning and conduct of research, research planning, and research training programs and projects by the World Health Organization and other international organizations or groups engaged in, or concerned with, research or research training endeavors in the health sciences, and, through financial grants or other appropriate means, assist in special research, research planning, or research training projects conducted by or under the auspices of such organizations where they can effectively carry out such activities contemplated by this joint resolution;

(6) encourage and support the coordination of experiments and programs of research conducted in the United States with related programs conducted abroad, by facilitating the interchange of research scientists and experts between the United States and foreign countries and among other countries who are engaged in such experiments and programs of research, including the payment of per diem compensation, subsistence, and travel for such scientists and experts when away from their places of residence, as provided for experts and consultants in subsection (b) hereof;

(7) establish and maintain research fellowships within the National Institutes of Health and elsewhere with such allowances (including travel and subsistence expenses) as may be deemed necessary to train United States research workers, research teachers, technicians, and experts in the laboratories of other countries and to provide for the training of talented research fellows from abroad in the United States or in other countries, and, in addition, provide for such fellowships and other research training through financial grants to public and other nonprofit institutions or agencies in the United States or other countries;

(8) provide, through financial grants, loans, or contracts (without regard to the provisions of sections 3648 and 3709 of the Revised Statutes), for the improvement or alteration of facilities, including the erection of temporary facilities, for research and research training purposes when necessary to carry out the purposes of this joint resolution with respect to any project;

(9) conduct research, investigations, experiments, and studies in foreign countries or in the United States;

(10) encourage and support international communication in the sciences relating to health by means of calling or cooperating in the convening, and financing or contributing to the financing of the expenses of, international scientific meetings and conferences; and provide, or arrange for the provision of, translating and other services, and issue or finance publications, leading to a more effective dissemination of relevant scientific information with respect to research conducted in the United States or foreign countries; and

(11) upon recommendation of the Council, employ such other means as he may deem necessary or appropriate for carrying out the purposes of this joint resolution.

(b) The Surgeon General is authorized, to the extent he deems it necessary to carry out the provisions of this joint resolution, (1) to employ experts and consultants or organizations thereof, as authorized by section 15 of the Act of August 2, 1946 (5 U.S.C. 55a); individuals so employed shall be entitled to compensation and allowances as provided in section 5(c) for members of the Council, and (2) to employ and make payments of compensation to aliens notwithstanding any prohibition in any other law.

(c) The Secretary is authorized to establish and fix the compensation for, within the Department (including any agency thereof), in addition to other

positions for carrying out this joint resolution, not more than ten scientific, professional, and administrative positions to effectuate those activities in the Department in carrying out this joint resolution which require the services of specially qualified scientific, professional, or administrative personnel, in the same manner and subject to the same limitations as in the case of the positions authorized under section 208 (g) of the Public Health Service Act.

(d) In carrying out the provisions of this joint resolution the Surgeon General is authorized to establish offices in foreign countries, for such areas as he may deem advisable, and for such purpose appropriations for carrying out this joint resolution shall be available for rental or lease outside the United States of offices, buildings, grounds, and living quarters to house personnel; maintenance, furnishings, necessary repairs, improvements, and alterations to properties owned or rented by the United States Government abroad; and costs of fuel, water, and utilities for such properties.

SEC. 7. In the exercise of his authority under the provisions of this joint resolution the Secretary shall take such steps as in his judgment are necessary or appropriate to assure that, in the administration of the program—

(a) the facilities and services of agencies and offices of the Department other than the Public Health Service are utilized to the optimum extent;

(b) provision is made for coordination of the work of, and consultation between, the Public Health Service and such other agencies and offices of the Department;

(c) in determining (within the limits of available appropriations) the relative emphasis, priorities, and fund allocations for the various areas within the overall program, appropriate weight and recognition is given to research and research-training needs in fields involving or related to rehabilitation and to maternal health and child health; and

(d) this joint resolution shall be administered consistently with the foreign policy of the United States as determined by the President and the Secretary of State.

SEC. 8. (a) There is hereby authorized to be appropriated to the Surgeon General the sum of \$50,000,000 annually, to carry out the provisions of this joint resolution. Amounts appropriated for any fiscal year and remaining unobligated at the end of such year shall be available for obligation during the next fiscal year in addition to the amounts appropriated for such next fiscal year.

(b) The Secretary is authorized to transfer, from appropriations made hereunder, to other agencies and offices of the Department utilized in carrying out this joint resolution, such amounts as the Secretary may determine to be necessary for the payment of salaries and expenses of such agencies and offices.

SEC. 9. (a) The Surgeon General is authorized to make, with the approval of the Secretary, such administrative and other regulations as he finds necessary to carry out the provisions of this joint resolution.

(b) The Surgeon General may delegate to any officer or employee of the Service such of his powers and duties under this joint resolution, except the making of regulations, as he may deem necessary or expedient.

SEC. 10. The activities authorized herein shall not extend to the support of public health, medical care, or other programs of an operational nature as contrasted with research, research planning, and research training, nor shall any of the grants herein authorized include grants for the improvement or extension of public health administration in other countries except for necessary research, research planning, and research training in the science of public health and public health administration.

SEC. 11. Nothing in this joint resolution shall be construed to repeal or restrict authority otherwise vested in the Secretary, the Surgeon General, or any other officer or agency of the Department, or in any other officer or agency of the United States.

SEC. 12. The Surgeon General shall transmit to the Secretary, for transmission to the Congress at the beginning of each regular session, a report summarizing the activities under this joint resolution and making such recommendations as he may deem appropriate. The Surgeon General shall include in his annual report a statement covering recommendations made by the Council and the disposition thereof.

(NOTE.—H.J. Res. 370, by Mr. Fogarty, which supersedes H.J. Res. 129, is identical to H.J. Res. 361.)

[H.J. Res. 443, 86th Cong., 1st sess.]

JOINT RESOLUTION To establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes

Whereas it is recognized that disease and disability are the common enemies of all nations and peoples, and that the means, methods, and techniques for combating and abating the ravages of disease and disability and for improving the health and health standards of man should be sought and shared, without regard to national boundaries and divisions; and

Whereas advances in combating and abating disease and in the positive promotion of human health can be stimulated by supporting and encouraging cooperation among scientists, research workers, and teachers on an international basis, with consequent benefit to the health of our people and of all peoples; and

Whereas there already exist tested means for international cooperation in matters relating to health, including the World Health Organization, the Pan American Health Organization, and the United Nations Children's Fund (UNICEF), with which the United States is identified and associated, and it is highly desirable that the United States establish domestic machinery for the maximum mobilization of its health research resources, the more efficiently to cooperate with and support the research, research-training and research-planning endeavors of such international organizations: Therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That this joint resolution may be cited as the "International Health and Medical Research Act of 1959."

SEC. 2. It is the purpose of this joint resolution to advance the status of the health sciences in the United States, the health standards of the American people, and those of other countries and peoples, by cooperative endeavors in health research, research planning, and research training with the scientists, research workers, technicians, experts, and teachers of other countries; and to that end to help mobilize the health sciences in the United States as a force for peace, progress, and good will among the peoples of the world.

SEC. 3. There is hereby established in the Public Health Service, within the National Institutes of Health, the National Institute for International Health and Medical Research (hereinafter referred to as the "Institute").

SEC. 4. Subject to the supervision and direction of the Secretary of Health, Education, and Welfare (hereinafter referred to as the "Secretary"), the Surgeon General of the United States Public Health Service, through the Institute and in cooperation with the National Advisory Council for International Health and Medical Research hereinafter established, shall carry out the provisions of this joint resolution, and for such purpose may utilize, in addition to the Institute, other units of the Public Health Service and, subject to the approval of the Secretary, the Office of Vocational Rehabilitation, the Children's Bureau, and such other agencies and offices in the Department of Health, Education, and Welfare (hereinafter referred to as the "Department") as he may deem advisable.

SEC. 5. (a) There is hereby established a National Advisory Council for International Health and Medical Research (hereinafter referred to as the "Council"), consisting of the Surgeon General, who shall be Chairman, the Director of the Office of Vocational Rehabilitation or his representative, and the Chief of the Children's Bureau or his representative, who shall be ex officio members, and sixteen members appointed by the Secretary without regard to the civil service laws, twelve nominated by the Surgeon General, two nominated by the Director of the Office of Vocational Rehabilitation, and two nominated by the Chief of the Children's Bureau. The sixteen appointed members shall be leaders in the fields of health research; health sciences; teaching and training in the health sciences; and public and international affairs; and shall include, among others, leaders in fields related to the health of mothers and children and in the field of rehabilitation. Each appointed member shall hold office for a term of four years, except that (1) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (2) the terms of the members first taking office after the date of enactment of this joint resolution shall expire, as designated by the Secretary at the time of appointment, four at the end of four years after such date, four at the end of three years after such date, four at the end of two years after such date, and four at the end of one year after such date. None of the appointed members shall be eligible for reappointment until a year has elapsed since the end of his preceding term.

(b) The Council is authorized to—

(1) advise, consult with, and make recommendations to the Secretary and the Surgeon General on matters relating to the purposes and activities authorized by this joint resolution;

(2) review applications for financial grants under section 6(a) and recommend to the Surgeon General its approval of those applications which it believes show promise of making valuable contributions to carrying out the purposes of this joint resolution, and no financial grant made under the terms of this joint resolution shall be approved by the Surgeon General except after review and recommendation for approval by the Council; and

(3) review, and make recommendations to the Surgeon General with respect to, such other research projects or programs or proposals therefor, relating to the purposes of this joint resolution, as may be submitted to or initiated by it.

(c) Appointed members of the Council who are not otherwise in the employ of the United States, while attending meetings of the Council or otherwise serving at the request of the Surgeon General, shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding \$50 per diem, including travel time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

(d) (1) Any appointed member of the Council is hereby exempted, with respect to such appointment, from the operation of sections 281, 283, 284, and 1914 of title 18 of the United States Code, and section 190 of the Revised Statutes (5 U.S.C. 99), except as otherwise specified in paragraph (2) of this subsection.

(2) Such exemption shall not extend—

(A) to the receipt or payment of salary, in connection with the appointee's service as a member of the Council, from any source other than the private employer of the appointee at the time of his appointment, or

(B) during the period of such appointment, and the further period of two years after the termination thereof, to the prosecution or participation in the prosecution, by any persons so appointed, of any claim against the Government involving any matter concerning which the appointee had any responsibility arising out of his appointment during the period of such appointment.

(e) Provision shall be made by the Secretary for representatives of other Federal departments or agencies engaged in or supporting research in the sciences relating to health to be invited to meet with the Surgeon General, and, when appropriate, with the Council, to discuss programs and problems of common interest.

SEC. 6. (a) In carrying out the purposes of this joint resolution, the Surgeon General is authorized to encourage, support, promote the coordination of, and otherwise cooperate and assist in the training for, and the planning and conduct of, in foreign countries and (when deemed necessary to carry out such purpose) in the United States, research, investigations, experiments, and studies relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and impairments of mankind (including nutritional and other health deficiencies), or relating to the rehabilitation of the physically or mentally handicapped, and to these ends—

(1) make financial grants to universities, hospitals, laboratories, or other public or private institutions or agencies, or to individuals in foreign countries or in the United States, or contract with such institutions, agencies, or individuals without regard to sections 3648 and 3709 of the Revised Statutes;

(2) make grants or loans of equipment, or of medical, biological, physical, or chemical substances or other materials, for use by such institutions, agencies, or individuals;

(3) furnish technical assistance and advice to such institutions or agencies;

(4) provide to such institutions or agencies, and pay the compensation and expenses of, scientists and experts from the United States and other countries and facilitate the interchange among foreign countries of scientists and experts (including the payment of travel and subsistence for such scientists and experts when away from their places of residence);

(5) cooperate and assist in the planning and conduct of research, research planning, and research training programs and projects by the World

Health Organization and other international organizations or groups engaged in, or concerned with, research or research training endeavors in the health sciences, and, through financial grants or other appropriate means, assist in special research, research planning, or research training projects conducted by or under the auspices of such organizations where they can effectively carry out such activities contemplated by this joint resolution;

(6) encourage and support the coordination of experiments and programs of research conducted in the United States with related programs conducted abroad, by facilitating the interchange of research scientists and experts between the United States and foreign countries and among other countries who are engaged in such experiments and programs of research, including the payment of per diem compensation, subsistence, and travel for such scientists and experts when away from their places of residence, as provided for experts and consultants in subsection (b) hereof;

(7) establish and maintain research fellowships within the National Institutes of Health and elsewhere with such allowances (including travel and subsistence expenses) as may be deemed necessary to train United States research workers, research teachers, technicians, and experts in the laboratories of other countries and to provide for the training of talented research fellows from abroad in the United States or in other countries, and, in addition, provide for such fellowships and other research training through financial grants to public and other nonprofit institutions or agencies in the United States or other countries;

(8) provide, through financial grants, loans, or contracts (without regard to the provisions of sections 3648 and 3709 of the Revised Statutes), for the improvement or alteration of facilities, including the erection of temporary facilities, for research and research training purposes when necessary to carry out the purposes of this joint resolution with respect to any project;

(9) conduct research, investigations, experiments, and studies in foreign countries or in the United States;

(10) encourage and support international communication in the sciences relating to health by means of calling or cooperating in the convening, and financing or contributing to the financing of the expenses of international scientific meetings and conferences; and provide, or arrange for the provision of, translating and other services, and issue or finance publications, leading to a more effective dissemination of relevant scientific information with respect to research conducted in the United States or foreign countries; and

(11) upon recommendation of the Council, employ such other means as he may deem necessary or appropriate for carrying out the purposes of this joint resolution.

(b) The Surgeon General is authorized, to the extent he deems it necessary to carry out the provisions of this joint resolution, (1) to employ experts and consultants or organizations thereof, as authorized by section 15 of the Act of August 2, 1946 (5 U.S.C. 55a); individuals so employed shall be entitled to compensation and allowances as provided in section 5(c) for members of the Council; and (2) to employ and make payments of compensation to aliens notwithstanding any prohibition in any other law.

(c) The Secretary is authorized to establish and fix the compensation for, within the Department (including any agency thereof), in addition to other positions for carrying out this joint resolution, not more than ten scientific, professional, and administrative positions to effectuate those activities in the Department in carrying out this joint resolution which require the services of specially qualified scientific, professional, or administrative personnel, in the same manner and subject to the same limitations as in the case of the positions authorized under section 208(g) of the Public Health Service Act.

(d) In carrying out the provisions of this joint resolution the Surgeon General is authorized to establish offices in foreign countries, for such areas as he may deem advisable, and for such purpose appropriations for carrying out this joint resolution shall be available for rental or lease outside the United States of offices, buildings, grounds, and living quarters to house personnel; maintenance, furnishings, necessary repairs, improvements, and alterations to properties owned or rented by the United States Government abroad; and costs of fuel, water, and utilities for such properties.

SEC. 7. In the exercise of his authority under the provisions of this joint resolution the Secretary shall take such steps as in his judgment are necessary or appropriate to assure that, in the administration of the program—

(a) the facilities and services of agencies and offices of the Department other than the Public Health Service are utilized to the optimum extent;

(b) provision is made for coordination of the work of, and consultation between, the Public Health Service and such other agencies and offices of the Department;

(c) in determining (within the limits of available appropriations) the relative emphasis, priorities, and fund allocations for the various areas within the overall program, appropriate weight and recognition is given to research and research-training needs in fields involving or related to rehabilitation and to maternal health and child health; and

(d) this joint resolution shall be administered consistently with the foreign policy of the United States as determined by the President and the Secretary of State.

SEC. 8. (a) There is hereby authorized to be appropriated to the Surgeon General the sum of \$50,000,000 annually, to carry out the provisions of this joint resolution. Amounts appropriated for any fiscal year and remaining unobligated at the end of such year shall be available for obligation during the next fiscal year in addition to the amounts appropriated for such next fiscal year.

(b) The Secretary is authorized to transfer, from appropriations made hereunder, to other agencies and offices of the Department utilized in carrying out this joint resolution, such amounts as the Secretary may determine to be necessary for the payment of salaries and expenses of such agencies and offices.

SEC. 9. (a) The Surgeon General is authorized to make, with the approval of the Secretary, such administrative and other regulations as he finds necessary to carry out the provisions of this joint resolution.

(b) The Surgeon General may delegate to any officer or employee of the Service such of his powers and duties under this joint resolution, except the making of regulations, as he may deem necessary or expedient.

SEC. 10. The activities authorized herein shall not extend to the support of public health, medical care, or other programs of an operational nature as contrasted with research, research planning, and research training, nor shall any of the grants herein authorized include grants for the improvement or extension of public health administration in other countries except for necessary research, research planning, and research training in the science of public health and public health administration.

SEC. 11. Nothing in this joint resolution shall be construed to repeal or restrict authority otherwise vested in the Secretary, the Surgeon General, or any other officer or agency of the Department, or in any other officer or agency of the United States.

SEC. 12. The Surgeon General shall transmit to the Secretary, for transmission to the Congress at the beginning of each regular session, a report summarizing the activities under this joint resolution and making such recommendations as he may deem appropriate. The Surgeon General shall include in his annual report a statement covering recommendations made by the Council and the disposition thereof.

EXECUTIVE OFFICE OF THE PRESIDENT,

BUREAU OF THE BUDGET,

Washington, D.C., July 10, 1959.

HON. OWEN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

MY DEAR MR. CHAIRMAN: This is in response to your requests for the views of the Bureau of the Budget with respect to House Joint Resolution 129, to establish in the Department of Health, Education, and Welfare the National Advisory Council for International Medical Research, and to establish in the Public Health Service the National Institute for International Medical Research, in order to help mobilize the efforts of medical scientists, research workers, technologists, teachers, and members of the health professions generally, in the United States and abroad, for assault upon disease, disability, and the impairments of man and for the improvement of the health of man through international cooperation in research, research training, and research planning, and

House Joint Resolution 361, to establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes.

If enacted, these resolutions would—

(1) create a new institute within the National Institutes of Health to be known as the National Institute of International Health.

(2) establish, within the Department of Health, Education, and Welfare, a National Advisory Council for International Medical Research which would consist of the Surgeon General as chairman, a representative of the Secretary of State, and 16 public members to be appointed by the Secretary of Health, Education, and Welfare.

(3) authorize annual appropriations of \$50 million for grants, loans, and other activities designed to encourage and stimulate research into a broad variety of health problems.

House Joint Resolution 129 is identical to the introduced version of Senate Joint Resolution 41 upon which this Bureau submitted a preliminary report on March 9, 1959. A copy of that report is enclosed for your information.

House Joint Resolution 361 is identical to the version of Senate Joint Resolution 41 enacted by the Senate. Our comments on the original version apply equally to House Joint Resolution 361 and the amended version of Senate Joint Resolution 41.

The provisions of section 5(a) of House Joint Resolution 361 appear to raise an additional question. As presently written, these provisions would require the Secretary to appoint as members of the National Advisory Council for International Health and Medical Research 12 persons nominated by the Surgeon General, two persons nominated by the Director of the Office of Vocational Rehabilitation, and two persons nominated by the Chief of the Children's Bureau. These provisions, in our opinion, are an undesirable limitation on the authority of the Secretary, and may raise constitutional questions.

You are therefore informed that the Bureau of the Budget cannot recommend enactment of either House Joint Resolution 129 or House Joint Resolution 361 in their present form.

Sincerely yours,

PHILLIP S. HUGHES,
Assistant Director for Legislative Reference.

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SECRETARY,
Washington, July 16, 1959.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR CONGRESSMAN HARRIS: This is in further response to your request for the comments of this Department on House Joint Resolution 129, to establish in the Department of Health, Education, and Welfare the National Advisory Council for International Medical Research, and to establish in the Public Health Service the National Institute for International Medical Research, in order to help mobilize the efforts of medical scientists, research workers, technologists, teachers, and members of the health professions generally, in the United States and abroad, for assault upon disease, disability, and the impairment of man and for the improvement of the health of man through international cooperation in research, research training, and research planning.

The provisions of House Joint Resolution 129 relating to international research are of particular interest to the Department of Labor in the field of rehabilitation of the physically handicapped, because of its responsibility for providing counseling and placement services to this group. Rehabilitation is an indispensable service in the restoration of many severely disabled persons to the status of competent self-sustaining workers. However, although it appears that the resolution would assist in the development of additional knowledge in this field, we would prefer to leave detailed comment on its provisions to the Department of Health, Education, and Welfare, the agency which would be directly affected by its provisions.

The Bureau of the Budget advises that it has no objection to the submission of this report.

Sincerely yours,

JAMES T. O'CONNELL,
Under Secretary of Labor.

DEPARTMENT OF STATE,
Washington, August 3, 1959.

Hon. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.*

DEAR MR. HARRIS: I have received your communication dated May 7, 1959, requesting a report on House Joint Resolution 361, entitled "To establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes." It is assumed that the request for this report supersedes an earlier request for a report on House Joint Resolution 129, since they are similar bills serving generally the same purpose.

In his last two addresses on the state of the Union, the President has called for intensified effort in international cooperation in the health field, in order to give in this way concrete expression to the desire of the people of the world for peace. Thus, in 1958, as an indication of our willingness to engage in such "works of peace," he offered on behalf of this Nation to engage in international cooperative "campaigns against the diseases that are the common enemy of all mortals—such as cancer and heart disease." And in 1959, again, he proclaimed the Nation's "wish to be part of a great shared effort toward the triumph of health," and declared that by various means we shall "continue and expand our campaign against the afflictions that now bring needless suffering and death to so many of the world's people."

First of all, we want to make it clear that we are in accord with the purposes and objectives of this bill.

As you undoubtedly recognize, all or most of the activities which House Joint Resolution 361 would authorize are now authorized under existing laws. We believe, however, that it is advantageous to bring these authorizations together into one law—subject to the recommendations made below—both from the standpoint of underlining the support of the executive and legislative branches for those activities and also in the interest of coordinating and improving the administration of these programs.

In this connection, I desire to stress the fact that for the fiscal year 1960 the President in his annual budget message has requested the appropriation of funds for various activities, out of which nearly \$100 million is for such international health activities as (a) contributions to the World Health Organization, the Pan American Health Organization, United Nations Children's Fund, and the United Nations; (b) the malaria eradication program and assistance to underdeveloped countries in improving community water supplies; (c) health activities carried out through the International Cooperation Administration under technical assistance agreements with 40-odd other governments; and (d) the National Institutes of Health research and training grant program.

House Joint Resolution 361, however, is in our judgment in need of certain basic revisions, as well as certain modifications and improvements in the various authorizations specified, in order to furnish a sound statutory basis for effective programs of international health and medical research, and research in rehabilitation, within the framework of the total program of the United States in the field of international health. Our major recommendations to that end are stated below.

1. We recommend that basic statutory authority under the bill be vested in the President, with the expectation that it would be exercised by him through the Secretary of Health, Education, and Welfare, under the policy guidance of the Secretary of State. This would insure that the size and certain other basic characteristics of this program would be determined, and the program operated, in the context of the total program of this country in the field of international health, including activities for health programs of an operational nature as contrasted with research and research training.

2. For the same reason, we recommend that instead of authorizing appropriations to be made to the Surgeon General, section 8(a) of the bill authorize that appropriations "to carry out the provisions of this joint resolution" be

made to the President as a part of the appropriations structures of the mutual security program. Funds allotted to the Department of Health, Education, and Welfare by the President under this authority would thus, in line with the preceding recommendation, be used for carrying out the provisions of this bill under such directions as may be given by the President, and subject to policy guidance by the Secretary of State.

3. We believe that a mandatory provision for the establishment of a National Institute for International Health and Medical Research is unnecessary and also unsound in that it would introduce undue rigidity into the structure of the program and make more difficult the evolution of the most desirable pattern and structure for administration of the program.

4. We strongly urge deletion of the specific statutory authorization of an appropriation of \$50 million annually in section 8(a) of the bill. The amounts to be recommended to Congress for carrying out this bill, if enacted, would have to be determined from time to time in the context of all of the other relevant activities in the field of international cooperation and aid. We do not believe that it would be wise to include a specific authorization which could be construed by foreign countries as a commitment on the part of the United States to appropriate that amount each year.

As stated earlier, the Department is in accord with the purposes and objectives of this bill. However, the Department believes that they would be more effectively advanced by the adoption of these suggested amendments.

The Department has been informed by the Bureau of the Budget that there is no objection to the submission of this report.

Sincerely yours,

WILLIAM B. MACOMBER, Jr.,
Assistant Secretary
(For the Acting Secretary of State).

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
OFFICE OF LEGISLATIVE LIAISON,
Washington, D.C., July 16, 1959.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

MY DEAR MR. CHAIRMAN: Reference is made to your request to the Secretary of Defense for the views of the Department of Defense with respect to House Joint Resolution 361, a joint resolution to establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes. The Secretary of Defense delegated to the Department of the Navy the responsibility for expressing the views of the Department of Defense thereon.

This resolution would establish in the Public Health Service, within the National Institutes of Health, the National Institute for International Health and Medical Research. There would also be established a National Advisory Council for International Health and Medical Research, of which the Surgeon General, Public Health Service, would be chairman. There would be 2 ex officio and 16 appointed members. Training, planning, grants, and technical assistance would comprise the functional tools of the agency and Council.

On the assumption that establishment of the proposed Institute and Council would not interfere with the objectives or activities of the Department of Defense in the field of international health and medical research, the Department of the Navy, on behalf of the Department of Defense, has no comment on the overall merits of the resolution.

Enactment of this resolution would cause no additional expense to the Department of Defense.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

JOHN S. MCCAIN, Jr.,
Rear Admiral, U.S. Navy, Chief of Legislative Affairs
(For the Secretary of the Navy).

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SECRETARY,
Washington, July 16, 1959.

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR CONGRESSMAN HARRIS: This is in further response to your request for the comments of this Department on House Joint Resolution 361, a joint resolution to establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes.

The provisions of House Joint Resolution 361 relating to international research are of particular interest to the Department of Labor in the field of rehabilitation of the physically handicapped, because of its responsibility for providing counseling and placement services to this group. Rehabilitation is an indispensable service in the restoration of many severely disabled persons to the status of competent self-sustaining workers. However, although it appears that the resolution would assist in the development of additional knowledge in this field, we would prefer to leave detailed comment on its provisions to the Department of Health, Education, and Welfare, the agency which would be directly affected by its provisions.

The Bureau of the Budget advises that it has no objection to the submission of this report.

Sincerely yours,

JAMES T. O'CONNELL,
Under Secretary of Labor.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

HON. OREN HARRIS,
*Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This letter is in response to your request of May 7, 1959, for a report on House Joint Resolution 361, a bill by Mr. Roberts to establish a National Institute for International Health and Medical Research, to provide for international cooperation in health research, research training, and research planning, and for other purposes.

This report applies also to the identical bill, House Joint Resolution 370, and to the substantially identical bill, Senate Joint Resolution 41, as passed by the Senate. (We understand that H.J. Res. 370 is intended to supersede H.J. Res. 129, by the same author, Mr. Fogarty, on which you earlier requested our report. We have therefore not included comment on H.J. Res. 129 in this report.)

First of all, we want to make it clear that we are in accord with the purposes and objectives of these bills.

In his last two addresses on the state of the Union the President has called for intensified efforts in international cooperation in the health field, in order to give in this way concrete expression to the desire of the people of the world for peace. Thus, in 1958, as an indication of our willingness to engage in such "works of peace," he offered on behalf of this Nation to engage in international cooperative "campaigns against the diseases that are the common enemy of mortals—such as cancer and heart disease." And in 1959, again, he proclaimed the Nation's "wish to be part of a great shared effort toward the triumph of health," and declared that by various means we shall "continue and expand our campaign against the afflictions that now bring needless suffering and death to so many of the world's people."

As you undoubtedly recognize, all or most of the activities which these bills would authorize are now authorized under existing laws. We believe, however, that it is advantageous to bring these authorizations together into one law—subject to the recommendations made below—both from the standpoint of underlining the support of the executive and legislative branches for these activities and also in the interest of coordinating and improving the administration of these programs.

In this connection, we desire to stress the fact that, for the fiscal year 1960, the President in his usual budget message has requested the appropriation of nearly \$100 million for such international health activities as (a) contribu-

tions to the World Health Organization, the Pan American Health Organization, the United Nations Children's Fund, and the United Nations; (b) the malaria eradication program and assistance to underdeveloped countries in improving community water supplies; (c) health activities carried out through the International Cooperation Administration under technical assistance agreements with 40-odd other governments; and (d) the National Institutes of Health research and training grant programs.

The bills, however, are in our judgment in need of four important changes in order to furnish a sound statutory basis for effective programs of international health and medical research, and research in rehabilitation, within the framework of the total program of the United States in the field of international health.

1. We recommend that basic statutory authority under the bill be vested in the President, with the expectation that it would be exercised by him through the Secretary of Health, Education, and Welfare, under the policy guidance of the Secretary of State. This would insure that the size and certain other basic characteristics of this program will be determined, and the program operated, in the context of the total program of this country in the field of international health, including activities for health programs of an operational nature as contrasted with research and research training.

2. For the same reason, we recommend that, instead of authorizing appropriations to be made to the Surgeon General, section 8 of the bills be revised to authorize that appropriations "to carry out the provisions of this joint resolution" be made to the President as a part of the appropriations structure of the special assistance program. Funds allotted to this Department by the President under this authority would thus, in line with the preceding recommendation, be used for carrying out the provisions of this bill under such directions as may be given by the President, and subject to policy guidance by the Secretary of State.

3. We believe that a mandatory provision for the establishment of a National Institute for International Health and Medical Research is unnecessary and also unsound, in that it would introduce undue rigidity into the structure of the program and make more difficult the evolution of the most desirable pattern structure for administration of the program.

4. We strongly urge deletion of the specific statutory authorization of an appropriation of \$50 million annually in section 8 of the bills. The amounts to be recommended to Congress for carrying out this bill, if enacted, would have to be determined from time to time in the context of all of the other relevant activities in the field of international cooperation and aid. We do not believe that it would be wise to include a specific authorization which could be construed by foreign countries as a commitment on the part of the United States to appropriate that amount each year.

In conclusion, we recommend enactment of this bill if amended along the lines suggested above.

The Bureau of the Budget advises that it perceives no objection to the submission of this report to your committee.

Sincerely yours,

ARTHUR S. FLEMMING, *Secretary*.

MR. ROBERTS. Before we begin hearing from our first witness, the Chair desires to make a brief statement with respect to the legislation before the subcommittee and the hearings which the subcommittee will conduct.

Senate Joint Resolution 41 was cosponsored by 63 Senators and passed the other body with only token opposition. The fact that this resolution has been named the "health-for-peace" legislation, and that it has received much attention by some segment of the press, has led some Members of Congress and not a few members of the public to suspect that this legislation is nothing more than \$50 million worth of a goodwill gesture which actually has little to do with improving medical research.

I would like to say at the outset that I believe, after some careful study of this legislation, that medical research in the United States has a good deal to gain if our research efforts do not stop at our

borders, and that legislation which would constitute a constant reminder of this fact would be in the interest of effective medical research and thus in the interest of the American people.

The circumstance that such broadened research effort might also have some good side effects in terms of improved international relations of the United States and improved health conditions in some foreign countries should be welcome but overemphasis of these side effects, in my opinion, misses the principal purpose of this legislation—namely, strengthening U.S. medical research efforts.

The proposition that effective medical research cannot stop at our borders is not novel by any means as far as this committee is concerned. In 1956 the Subcommittee on Health and Science, under the chairmanship of the late great Chairman J. Percy Priest, of Tennessee, held several days of hearings on the subject of international health programs and the role which the U.S. Public Health Service plays in these programs. As a result of these hearings, the Committee on Interstate and Foreign Commerce, on May 23, 1957, filed a report on the organization and financing of, and the participation of the United States in, international health programs—House Report No. 474, 85th Congress, 1st session, Union Calendar No. 157.

The report attempted to present a complete résumé of what the United States is doing in the field of international health as a whole.

The report stressed the importance of new insights which can frequently be obtained by studying the cause of particular diseases in different settings. Therefore, the report concluded, it is important that in addition to research carried on by American scientists at home, such research also be conducted abroad. The then Surgeon General, Dr. Leonard A. Scheele, testified that, for example, in the field of cancer there are substantial differences in the incidence of certain forms of cancer in different countries, and that by persuading researchers in these other countries to take on their country's side of the project "we might have some windows of knowledge opened because of these differences."

Similar studies conducted abroad, Dr. Scheele testified, in the case of certain heart diseases might suggest the circumstances responsible for the fact that some populations do not seem to have coronary heart disease and do not seem to have as much hypertension as we have.

Use of foreign opportunities for research investigations not only helps us to find answers to unsolved disease problems but enables us to check the continuing validity of solutions of old problems. For example, cases of typhoid are so rare in this country that it was difficult to test the continued effectiveness of typhoid fever vaccine used for many years in this country. Through the cooperation of another country where typhoid is prevalent, more is now known about the efficacy of various typhoid vaccines.

Similar results were reached through tests abroad of an antirabies serum. It would have been impossible to conduct satisfactory tests in this country because cases of human rabies are too rare to make possible valid tests.

I wanted to make this brief statement at the outset of these hearings because I wanted to call to the attention of the expert witnesses who have indicated to the subcommittee their interest in this legislation that theirs is the burden of proving to the satisfaction of the members

of the subcommittee and thereby to the members of the full committee and the Members of the House of Representatives, that this legislation is more than a good-will gesture and that it will materially aid in strengthening medical research efforts in the United States and thus will materially benefit the American people. As I said, I believe that the legislation will accomplish these objectives but the record before this subcommittee must adduce positive proof if this resolution is to become law.

Our first witness this morning is the Honorable John E. Fogarty, who has, as all of us know, done a magnificent job in the field of medical research, who has been generally successful on the floor of the House with his appropriation bills in the field of health, and he is chairman, of course, of that subcommittee of the Appropriations Committee.

We would be glad to have the gentleman from Rhode Island come forward.

Mr. HARRIS. Mr. Chairman, before Mr. Fogarty presents his testimony, I would like to recognize and note for the record the presence of the chairman of the Appropriations Committee, the Honorable Clarence Cannon, who occupies the same position in that great committee as I do in this committee, and under whose full committee chairmanship Mr. Fogarty functions as chairman of the Subcommittee on Health, Education, and Welfare.

Mr. ROBERTS. I would like to say this: I know that the chairman, Mr. Cannon, is a busy man, and I know, too, that he would like to introduce the very eminent physician from his hometown.

The Chair would be glad if you would present your witness now, if you have to leave. Or, if you would like to stay with us, we would be certainly honored if you would stay.

STATEMENT OF HON. CLARENCE CANNON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. CANNON. Mr. Chairman, it is my misfortune not to be acquainted with the problems which this committee is taking up this morning. But I came down because I learned that you would have this morning a very distinguished witness, a man who in my opinion has cured more hopeless maladies and who has mended more broken lives than any physician since the Master walked beside the Sea of Galilee—Dr. Rusk, with whom you are all familiar. So I am always interested in anything which Dr. Rusk advocates. And I took advantage of your kind hospitality this morning to be here with Dr. Rusk.

Mr. ROBERTS. Delighted to have you, Mr. Cannon.

Mr. Fogarty?

STATEMENT OF HON. JOHN E. FOGARTY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Mr. FOGARTY. Mr. Chairman and members of the committee, my name is John E. Fogarty. I represent the Second Congressional District of the State of Rhode Island and at the present time I am chairman of the subcommittee that handles the appropriations for the Department of Health, Education, and Welfare, the Labor Department, and related agencies.

Mr. HARRIS. I might add, Mr. Chairman, that he has occupied this distinguished position for the last several Congresses, except for one intervening Congress, when he and I and others were relegated to the minority for a very brief spell.

Mr. FOGARTY. I appreciate the opportunity that you have afforded me to appear before you this morning on what I think is one of the most important pieces of legislation we will consider at this session of the Congress.

First, let me say that the work that I have been privileged to do in the field of health, in terms of the Appropriations Committee, was made possible only by the legislation that has been acted upon by your committee, as the legislative committee that gives us on the Appropriations Committee the authorization to appropriate funds for programs in the health and related fields.

I have been in Congress a few years now—19 to be specific—and I have seen many chairmen of this committee. I remember Mr. Crosser, and then I remember our old friend Percy Priest from Tennessee, who was such a fine chairman of this committee and made such a wonderful name for himself in the field of health legislation for his sponsorship of institutes similar to the one that is being considered here this morning. Following Mr. Priest, in those intervening 2 years, there was Mr. Wolverton on the Republican side, who, I think, was one of the great leaders in the Congress in advocating health measures that we have the authority to appropriate funds for now. And then, of course, Mr. Harris, who succeeded Mr. Wolverton as chairman of this great committee, has been in the forefront of the health legislation field for many, many years. And I remember the old Hill-Burton days, when that legislation was put into effect by this committee, and I think of the good that such legislation has done for the small communities of our country and for the people in our country.

And then there is the chairman of the Health and Safety Subcommittee, Mr. Roberts. Without any hesitation, I can call attention for the record to the work that he is doing, particularly in the field of health and accident prevention. I think Mr. Roberts you will be remembered for a long, long time for the leadership that you are providing in these fields as chairman of this most important committee. Without action by you members, as the legislative committee, we are unable to do anything, as you know, through the rules of the House, as far as appropriations are concerned.

I am here in support of these various bills that will set up an International Health Research Institute to declare war on disease not only in this country but all over the world.

A years ago last January, after listening to the President's state of the Union message, in which he stated that progress could be made in the fight against such diseases as cancer and heart and mental illness all over the world, and remembering the reply from the leader of Russia that perhaps in those areas they could reach some agreement and some advances could be made, Senator Hill and I were attending a meeting nearby with some leading medical men, and this subject came up. It was at that time, a year ago last January, that we started talking about this type of program to provide leadership that will in time get the answers to some of these problems that are killing human beings at this time.

And as a result of these many discussions, Senator Hill introduced a bill and I did last year. Then this year again Senator Hill introduced a bill, as did the chairman of the committee and others in the House. And as you have so well stated, Mr. Roberts, it has passed the Senate by unanimous vote, and now we have it before the House this year.

I, too, would like to note the appearance of the chairman of our Appropriations Committee, Mr. Cannon, at this hearing. Although I cannot speak for him, I think that his presence here speaks well for the idea that if you give us the authority and make it possible this year for us to appropriate funds to get started in this field and set up this new International Health Research Institute, the very presence of our distinguished chairman of the full Committee on Appropriations is a good sign that funds will be forthcoming. If you will give us the legislative authority to appropriate those funds we will first listen to Mr. Cannon, because—and I have said this before many, many times—I do not believe there are two men in the Congress on this side of the Capitol or the other side who deserve more credit for an attempt to balance the budget than Mr. Cannon, the chairman of our Appropriations Committee, and Mr. Taber, the ranking minority member of that committee. I think they have done more in that field over the years and have worked harder and have received less credit than any other Members of Congress, regardless of whether they come from the House or from the Senate. And Mr. Cannon's very presence here this morning, in view of his record, I think is a good sign that the money will be forthcoming.

I cannot understand why there is some opposition to the bill. When hearings were held in the Senate, even though there were several days of hearings, no person requested to be heard in opposition to this particular bill. The administration did find some fault with two or three provisions, as mentioned by the chairman in his opening statement, and I want to say that I do not agree with the criticisms by the administration. I agree wholeheartedly with the bill as it passed the Senate. I think it is a workable bill, and I think it is a bill that will be kept nonpolitical, as all medical scientists want it to be.

It will be a medical scientists' bill, a scientist-to-scientist bill, to the advantage of all the peoples all over the world, and we will keep it out of politics that way.

We have international organizations of all kinds. We have the International Society of Cardiology and many other international societies of medicine and science. We have the World Health Organization and others. They all play their own part. The have their part in this particular field. But if we were given the chance to provide leadership by establishing this institute and sharing some of the scientific know-how that we have today with other peoples all over the earth, I am sure, in my humble judgment, that would be one of the best ways to create better medical research, better fellowship, and a better feeling among nations of the world.

It was my privilege to attend the World Health Assembly meeting in Geneva this past spring. I was also there 2 years ago. And I do not know of anything better that we can do than to continue our cooperation in that program. The chairman of our delegation this year, Dr. Burney, who is our present Surgeon General, held luncheons every

day and we were asked to sit beside some of the foreign delegates who were representing their countries. Some 90 nations attended this meeting. And I think that we produced a great deal of good will between nations on the basis of this friendly exchange alone.

But in talking with some of these foreign representatives, I felt that if we could set up an Institute such as we are talking about, we could stimulate other countries to follow our lead in what we have been doing, as an example, at the National Institutes of Health in Bethesda, Md. I know, Mr. Chairman, that you are familiar with those Institutes. You know how they have worked. And they were set up by your committee—the Heart Institute, the Mental Health Institute, the Cancer Institute, and so on. They are established by law in much the same way that we are asking you to set up this new Institute.

A National Advisory Council of experts in the field of medical research would be set up, a group of advisers that would be nonpolitical. They would be appointed by the Surgeon General or by the President on the advice of the Surgeon General, and they would make recommendations on the applications for grants that are received from all over the world.

And may I say at this juncture that this is not all “give.” We will be providing leadership and a means for stimulating other countries to do more in their own areas than they are doing now. But at the same time, we will be getting back, I think, many, many times more than the United States is going to put into it.

The bill, as you know, calls for an authorization of \$50 million. I do not believe that the Institute would need the full \$50 million for operation next year. I think it would get along with less, but I think it should have the authorization of \$50 million to meet the needs in subsequent years. I would, if we had the legislative authority, ask my committee or any other committee to appropriate only enough funds to get this Institute into operation for the remainder of this fiscal year and then go on from there, as we have in all other pieces of legislation.

You know that under the hospital construction law, we have never appropriated the full authorization, and the same is true for many other legislative acts that have passed Congress; even though the authorizations may be for \$100 million, or \$200 million, that is not a mandatory demand on the Appropriations Committee to appropriate that amount of money. We appropriate only what we think can be used in a justifiable way and be expended in the coming fiscal year.

The administration has suggested that the dollar amount might be high. Well, as I say, the full \$50 million will not be needed for the first fiscal year. And I understand the administration would like to have the power vested in the President. I think that it should be kept free of international politics and politics of all kinds; that it ought to be on a scientist-to-scientist basis, the same as the National Institutes of Health are run.

The Cancer Institute has been established for 20 years; and the Heart Institute and the Mental Health Institute for 10 years. We have not had any real criticism of their operations to date. And as long as we have guidelines like that in setting up this International Health Research Institute, I think we are on sound grounds. We

are not going off into the dark blue yonder. We have something factual to base our actions on. I am sure some of these outstanding scientists and public citizens that you have invited to appear before your committee will give you concrete examples of international cooperation that they have seen during their visits to these various countries.

As for what Mr. Cannon has said of Dr. Rusk, I would like to just remark that I agree with everything he has said, and more. I have had the opportunity of listening to him on many occasions. He has appeared before our committee. He is known all over the world in the field of rehabilitation. I think that he has done a tremendous amount of good in creating good will in various countries all over the world, especially during the war and since the war.

I am not going to trespass on his time. I have heard him give examples of people who have come to him from our friends to the south and to the east; the leaders of other governments have sent children to his place in New York, and they have been rehabilitated. And I have heard him say many, many times that the rehabilitation of those children was a greater example and meant more than some of the millions of dollars that we give in a foreign aid bill.

I have listened to Dr. Paul White tell of his travels, and I have listened to the story of penicillin, and of the tranquilizing drugs. And polio—if it had not been for the international cooperation that existed on a limited scale at that time, we perhaps would not have some of these wonderful advances.

There are great possibilities that exist. With a little more stimulation and a little more effort and a little more leadership on our part, epitomized by the creation of an Institute like this. Those of us who have been listening to some of these doctors over the years testify know that their hope has been that some such Institute would be set up. They have felt the good would be immeasurable.

Mr. Chairman, I have a prepared statement. I have been ad libbing here. I would like to also file with you my prepared statement in behalf of these various bills setting up a National Institute of International Health Research.

Mr. ROBERTS. Without objection, your statement will be filed for the record.

(The prepared statement of Mr. Fogarty is as follows:)

Mr. Chairman, members of the committee, I am delighted to be one of the first witnesses to testify before you in connection with legislation that seeks to strengthen and intensify the Nation's international medical research effort. Enactment of this legislation, the International Health and Medical Research Act of 1959, may well be one of the most important actions of the Congress in recent years in terms both of the people's health and of international understanding. My purpose in appearing before you is to urge its enactment by the House of Representatives, which can be hastened by affirmative action of this committee which has such a distinguished record in the field of health legislation.

As many of you know, I have devoted a large share of my effort during nearly two decades in Congress to health appropriations as part of the total Federal activity within the Department of Labor and the Department of Health, Education, and Welfare. And I am convinced that my colleagues and the Members of the House of Representatives stand ready to finance this new program which widens the boundaries and deepens the substance of medical research through international collaboration. Certainly I will do everything within my power to support the appropriation of needed funds for this purpose.

I am interested in the enactment of the legislation that is before you because I see it as a natural and necessary corollary to our present medical research

activity in the United States. I am interested because I have had many opportunities to learn for myself the dramatic benefits that accrue as science broadens its horizons. And I am interested because of my deep personal conviction that health and medical research offer an unparalleled opportunity both to demonstrate good will in action and to achieve progress that will benefit all people regardless of their geographical, political, social, or other differences.

These interests have found expression in many ways. Last year, for example, I introduced into the House its first bill for an expanded international medical research effort. In January of this year, I again introduced a similar bill, the forerunner of the legislation that is now before you. The principles remain the same, and they are principles that I continue to endorse. The proposed bill constitutes a declaration of world war against disease. It does this by calling for the United States to take leadership in a program which will make it possible for scientists in other nations to enter into fuller and more effective partnership with our own scientists, seeking to achieve new understanding of the medical and scientific enigmas which constitute a barrier between the people and better health.

I hold that such a program represents not only an unmistakable act of brotherhood, but also enlightened self-interest.

It will be noted that I have already emphasized the importance of designing this program for scientific interchange. It now provides assurances that it will be administered through scientific channels, with mechanisms that are acceptable to the international scientific community. Only if it has such auspices, it seems to me, can the new program serve as a fully effective means of achieving international cooperation in research, research training, research planning, and the interchange of research knowledge. The program must be a scientific one, administered on a scientist-to-scientist basis; it must be of science and by science, yet for the peoples of the world.

The proposed legislation provides such emphasis in abundant measure. It calls for the establishment, as part of the National Institutes of Health in the Public Health Service, of a new Institute: The National Institute of International Health and Medical Research. It calls for the creation of a National Advisory Council, with members drawn from among the leaders in health, medical research, and public affairs, to provide advice and consultation to the Surgeon General relative to the policies and operations of the new Institute. And it authorizes the Surgeon General to conduct or support medical research in foreign countries as well as the United States; to support the exchange of scientists between nations; to encourage and support international scientific communications; to assist and cooperate with the health research activities of the World Health Organization and other international groups; and to carry out related activities designed to encourage and strengthen progress in this field on a worldwide basis.

The proposed legislation also carries with it an authorization for an annual appropriation of \$50 million. I understand that its proponents, within and outside of Government, feel that only a portion of that amount would be required during the first year after enactment.

I should like simply to enumerate some of the most telling reasons for affirmative action on this legislation by this committee, by its parent committee, and by the House of Representatives.

First is the inescapable fact that disease, disability, and premature death, despite our progress in health and medicine, demand a grim tribute in human suffering and in economic and social loss. We can choose no other course but to employ our skills and our resources, in cooperation with others, toward the reduction or elimination of this toll.

Moreover, it is fundamental that we must enlarge our basic knowledge and find new and more effective ways to bring research findings into medical and public health practice, if we are to advance significantly in the struggle against disease.

Then, too, it is axiomatic that health and medical research know no national boundaries. Other nations of the world have both the demonstrated capacity and the great potential for substantial contributions in such research. And effective research today involves horizons considerably broader than those that can be encompassed within a single nation.

We as a nation can gain much by bringing our economic and scientific resources to effective use. Such partnership and participation in worldwide medical research can be the crucial factor in hastening the solution of many health

problems faced by the people of this country as well as the other peoples of the world.

Perhaps the most important consideration of all is the prospect that in this field we can release ourselves from fears and concern with survival and act with a full sense of our heritage of freedom, our tradition of faith, and our concept of human dignity in furthering health and medical research for the benefit of all mankind.

I was surprised and distressed to learn that the Bureau of the Budget and the Department of Health, Education, and Welfare have taken the position that all authorities under this legislation should be vested in the President, and that the statutory provision for a National Institute of International Health and Medical Research should be eliminated. This suggests that they feel the program should be administered as part of our Federal activities related to the conduct of our foreign policy. I feel, on the other hand, that this program must not become an instrument of the cold war—that it must be administered apart from the political and foreign policy problems involved in our relationships with other governments.

All of us know that the medical research of this country has won respect and leadership throughout the world. Our research achievements, our great research and teaching institutions, our technical progress, the quality of our scientists—these have achieved recognition and distinction in recent years, during which we have emerged from our former state of virtual dependence upon other nations for fundamental knowledge and for research training. Now it is our turn freely and openly to extend to all nations and peoples the findings and fruits of our research.

A vital part of our advance has been made possible by the actions of the Congress of the United States through its generous support of medical research in appropriating funds to the Public Health Service and the National Institutes of Health. I feel privileged to have been able to play a part in this process, just as I am sure this committee feels proud of its legislative role in the past two decades when so much of the concept of these programs was translated into action. By placing the National Institute of International Health and Medical Research within the National Institutes of Health and under the direction of the Surgeon General, we gain for this new undertaking the benefit of the scientific and administrative resources represented by that outstanding institution. Anyone who is concerned with creating an effective program of international medical research could not seriously consider dangling the new program in a bureaucratic maze where it would be minus experienced scientific focus and subject to all sorts of buffetings to make science implement foreign policy, as compared with giving it the benefit of identity with an established and reputable scientific organization.

Yet there is no conflict in the proposed legislation between the new organizational entity and the programs and objectives of other components of the Public Health Service and the Department of Health, Education, and Welfare, or other agencies, private or public. The new Institute would not abrogate, but would strengthen existing programs, including the existing international activities of the Institutes already created by Congress and operating as the National Institutes of Health in Bethesda, Md.

The proposed legislation is needed to make explicit the intention of Congress and the American people that international medical research shall be intensified and expanded, and to provide a center or focus for such activity within the Public Health Service.

Before concluding my remarks, I wish to make one observation concerning the name of the proposed new Institute—seemingly a trivial matter, but one which may prove important to complete understanding of the nature of the program the Institute would engender. By naming the new activity the International Health and Medical Research Institute, some misunderstandings can be created. If it is read as the International Health Institute and the International Medical Research Institute, then the former term automatically implies the kind of service activity in the health field already encompassed within ICA programs, WHO, the Public Health Service's Division of International Health, and other agencies. If it is read as if the terms "health" and "medical" both modify "research," this too is potentially misleading because medicine is a part of health as a broader term. It is my understanding that the intent is to focus on research in broad fields related to health—fields so diverse that they could not be properly described as simply medical research. I propose, then, for your

consideration, that the Institute be called the International Health Research Institute. This action would be in keeping with an earlier decision of this committee when it defined a research construction program as the Health Research Facilities Construction Act—a decision which proved to be a very wise one indeed.

These remarks have concentrated on organization and purpose and operating machinery. But we must never forget that behind these are people—millions of people, in many lands—whose lives may be affected in a very direct and personal sense by the results that can be achieved through research in the health field.

A reading of the testimony before the Senate in its recent hearings on this legislation gives abundant evidence of the kinds of collaboration which the professional world thinks will be most productive in the health sciences. I am sure that record will be extended in even more convincing fashion in testimony before this committee. Let me merely summarize very briefly several recent conversations in which I have taken part that give emphasis to the values of international scientific collaboration.

One such conversation was with Dr. Joseph Smadel, Associate Director of the National Institutes of Health. In 1940, with cooperation from the British and the Federated States of Malaya, he and a Walter Reed associate, Dr. Woodward, were engaged in studies of scrub typhus—a disease of great importance in the Far East, but unknown here. They got startling results with a new drug, *chlôramphénicol*, in the treatment of a handful of patients thought to be suffering from the disease. Word was radioed to the United States, and soon the drug was proved effective in the treatment of Rocky Mountain spotted fever. Another startling consequence of the work in Malaya was that one of the patients was really suffering from typhoid fever. The new drug proved to be completely effective in the treatment of that disease and remains the drug of choice.

Recently I was talking with a cardiologist and asked him about a method of diagnosing heart defects—a method known as catheterization. He told me that the discovery that a small tube—a catheter—could be threaded into the living human heart was first made by a Dr. Forssmann in Germany. A researcher in Czechoslovakia used the technique for crude measures of cardiac output, but the work of these two scientists went unnoticed until 1941, when Dr. Cournand and his colleagues began pioneering work involving heart catheterization. The result has been significant contribution to knowledge of congenital heart defects and of heart and lung physiology; moreover, the use of catheterization in clinical medicine has expanded greatly, and it is routinely employed in the diagnosis and treatment of thousands of persons every year.

Just last week I was talking with scientists in the Boston area about the promising new leads indicating the possibility that certain forms of cancer may have viral origin, leading to the hope that there may someday be a vaccine to prevent such cancers. This led us into discussion of virus work in general, with focus on the Nobel prize-winning research of Dr. John Enders and the importance of his findings to the ultimate development of the Salk vaccine against poliomyelitis. I was impressed by the multitude of pieces of information from many scientists in many lands that have to be brought together before such major advances are possible. Enders' own success at growing polio viruses in tissue culture was dependent, for example, upon the availability of a broad-spectrum antibiotic derived from intensive screening of soil samples from all over the world by our pharmaceutical industry, and this in turn was dependent upon the major breakthrough in England represented by Flemming, Flory, and the discovery of penicillin.

I remember, too, that a scientist in the mental health field told me that chlorpromazine, a tranquilizing drug widely used in the treatment of some forms of mental illness, resulted from the development by a French scientist of antihistamine drugs for the treatment of allergies. It was noticed that an undesirable side effect was excessive drowsiness produced in some patients. From this came a drug useful in connection with hypothermia (cold sleep) for heart surgery, for tranquilizing action, and—unexpectedly—the use of antihistamine type drugs for the prevention and alleviation of motion sickness.

These few instances are cited merely to show how the health sciences routinely surmount the boundaries erected by nature and created by man. The pace could be accelerated and the certainty of success enhanced if there were a planned effort to stimulate and encourage productive international research and meaningful international scientific interchange. It is to these purposes that the proposed new institute is dedicated.

It goes without saying, I think, that the new program would not supersede existing activities in health research, either national, regional, or international. Rather it would provide an opportunity for collaboration in now-neglected fields, filling in the gaps and working with and through the existing organizations and mechanisms.

On my recent trip to Europe, where I served as a delegate appointed by the President to the World Health Assembly in Geneva, I had a special opportunity to see both the substance and the spirit of international cooperation in the health sciences. I took the time to visit research centers in London, Paris, and Rome, and I spent many hours in Geneva with the delegates from the more than 80 member nations of the World Health Organization. I came away filled with an awareness of the tremendous needs and opportunities that exist for an intensified program of research that extends into all aspects of the problem of disease in man, as well as for a marked expansion of those programs which apply today's knowledge for the improvement of man's health.

Yet I would not have you think of this new institute and the activities it engenders as a foreign aid program in any sense. The simple fact is this. We as a nation are committed, as a matter of policy based on broad humanitarian and sound economic goals, to a progressive improvement in the people's health. A strong diversified, and expanding research program has been mounted in this country. In order to progress with maximum effectiveness, it must now reach out and establish links with scientists and scientific activity in other countries. In the sense that the primary focus is on our own health problems and on the health status of our own people, it could be said to have a selfish motivation. As corollaries, the product of this intensified activity will be the improvement of the health of the people in other lands, the strengthening of scientific endeavor in other lands, and the development of a more positive working basis for mutual trust and understanding on the basis of a demonstrated ability to work together in common purpose.

I recognize the heavy legislative task confronting this committee in its important work related to the health and safety of the American people. But I urge you to press forward on this particular legislation with all possible speed commensurate with careful consideration of the issues and protection of the public interest, to the end that the International Health and Medical Research Act of 1959, modified as necessary in the good judgment of the Congress, may be implemented without delay.

Mr. ROBERTS. I would like to thank the distinguished gentleman and would certainly like to acknowledge his generous and gracious remarks with reference to the work of the Interstate and Foreign Commerce Committee. It is a tribute to our chairman, the distinguished gentleman from Arkansas. Certainly his remarks about the chairman of this subcommittee are very generous and are appreciated.

It has been a pleasure through the years to work with you. We have had a very fine piece of cooperation and teamwork together, and you are always very helpful in getting our money for us. You are also very successful. We are very grateful to you.

I am sure our chairman has something to say.

Mr. HARRIS. Mr. Chairman, I did want to join the other members of this committee in paying tribute to our distinguished colleague from Rhode Island for the fine service that he has rendered in the field of health as a member of the Appropriations Committee and as a Member of the Congress of the United States. John and I came here at the same time. We have had a very warm friendship and association during all of these years.

Certainly with the experience that he has had several years ago that everyone is familiar with—the heart attack that he suffered—and the splendid way in which he rehabilitated himself on the advice of physicians and experts in the field, we have before us a very fine example of the kind of rehabilitation a person can achieve with proper expert help.

I am not familiar with this proposed legislation, except from wires and letters and the names that have been mentioned of those who support this bill. All of this is laudable, and I am glad these hearings have been scheduled. As the chairman of this subcommittee knows, after my conversation with Mr. Fogarty and others, I felt we should hold full and complete hearings and get the viewpoints of all of those who are interested in this legislation as well as the controversial features of it. Subsequently, I am sure that the committee will give its best attention to the matter after these hearings have been held.

I am glad to have had the privilege of hearing Mr. Fogarty. I regret that I will not be able to remain during the hearings of the committee, Mr. Chairman, because I and some others have to leave town in about 15 minutes for the launching of the nuclear ship in Philadelphia in the next few hours. But I will look forward to reading Dr. Rusk's statement and the testimony of the other witnesses.

Mr. ROBERTS. Thank you, Mr. Chairman. And I would like to say, too, that the Chair is always grateful for the presence of the chairman of the full committee. We find that more and more he comes to the hearings of the Health and Safety Subcommittee. And we are deeply grateful to him for coming.

Anything further, gentlemen?

Mr. SCHENCK. Mr. Chairman, may I just express my appreciation to Mr. Fogarty for the fine work he has done? We are glad to associate ourselves with the comments of the chairman. I will not take further time of the committee.

Mr. FOGARTY. May I add one further thing, Mr. Chairman?

Mr. Schenck, before you came in, I did say some nice things about Mr. Wolverton, the former ranking member of this committee, and his leadership in the health field. I also want to say that you and I have discussed some of these problems that are common to all of us, and I am sure that when the history of this committee is written, you are going to be in the same category as Mr. Wolverton in taking leadership and cosponsoring some of these health measures, because I think the success of some of these measures has been because of keeping politics out of it. I do not like to see health measures made a political measure. And as long as we can keep them on a nonpolitical basis, I think that we can make greater advances in this area and do greater things for the people who are the recipients of the action that we take.

Thank you very much.

Mr. ROBERTS. I thank the gentleman.

The next witness is our colleague from South Dakota, the Honorable George McGovern. Mr. McGovern, we will be glad to hear you at this time.

STATEMENT OF HON. GEORGE MCGOVERN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH DAKOTA

Mr. MCGOVERN. Mr. Chairman and members of the committee, boundary disputes have been at the center of international tension during most of the world's history. The intensification of ideological warfare in the 20th century has resulted in the very real "iron curtain" phase which is a corollary of the present cold war. There is one field, however, where an iron curtain is nonexistent. Disease does

not respect national boundaries. It strikes with deadly intensity on both sides of the curtain. Disease cares not for the nationality of its victims or their political persuasion. The area of attack is worldwide, it encompasses the entire human race; and, to combat it, we must move rapidly and surely into the field of international research and cooperation. To strike down these killers and to remove the fear they represent from the human heart should be a fundamental aspiration and duty of every man and woman in the world.

International cooperation in health and medical research as embodied in the resolutions before this committee, including House Joint Resolution 211 which I introduced, is supported by doctors, scientists, research workers, and men of good will from all political faiths. All have been united in a real concern for the health of mankind. President Eisenhower voiced it in his state of the Union message of January 9 a year ago through his "science for peace" proposal. These resolutions also have the urgent endorsement of officials in the Department of Health, Education, and Welfare.

This resolution dealing with the encouragement of medical research on an international level is not intended to replace or affect any of the programs of cooperation with other countries in health matters now being undertaken. The legislation is designed to affirm to the world the interest of the United States in combating disease without regard to national boundaries.

The increasing gravity of this problem is known to all of us. We have only to examine the daily papers or to look at the circle of people we number among our friends and relatives to be persuaded that disease and disability are increasingly grave problems. This is no meaningless fear that strikes only the old, or the young, the rich, the poor, our enemies or our friends. This is a fear that walks daily beside each and every one of us. We have the capacity to meet it. The skills and knowledge are available, but they must be coordinated on a worldwide scale.

The international character of disease can be seen as we examine the new diseases and new varieties of old diseases as they appear. Many of the old immunities are disappearing. Communication which has helped to bring about a one world concept has also opened that world to the ravages of old diseases appearing in new places. The recent worldwide epidemic called Asiatic flu is but one example.

Control and elimination of one form of disease has often exposed people to other forms which in turn must be attacked. Progress has been made but we are finding ever evident the fact that we do not live on an island separated from all other forms of humanity. Problems of disease are not national and success in meeting them will be elusive unless we broaden the stage and make the effort truly international. Gen. Omar Bradley has summed it up when he said that it is hard to conceive of a better plan for assuring international understanding "than to join with other peoples in solving our common health problems."

We dare not lose even a year in our life-and-death race against such dread killers as cancer and heart disease. Any such delay would be tragic. To illustrate the need for an acceleration of the medical research program we have only to look at the figures for the United States to be shocked by our seeming indifference to this problem which will affect all of us in varying degrees.

With 15,800,000 Americans suffering from heart disease we are spending \$34.2 million a year on Federal research in this field or \$2.16 for each person presently afflicted. Some 26 million Americans now living will die of cancer unless new treatments and cures are found, yet our bill for research is \$58 million or a yearly cost for each of us of 35 cents. Seventeen million people in the United States are suffering from some form of mental illness while the research expenditure is \$27 million or \$1.58 per victim or a cost of 16 cents per year for each of us. Arthritis and metabolic disease will affect 13 million Americans has a research program costing \$26 million or \$2 per year per victim. Perhaps the tragedy of this unrealistic approach to these dread diseases is made more striking when we examine the figure of \$157.8 million that the Department of Agriculture will spend this year for research in plant and animal disease and related research. We as Americans are willing to spend less for Government research into the causes and prevention of cancer, heart disease, mental illness, and arthritis and metabolic disease than we are on plant and animal diseases and related research. In 1957 we spent as much for shampoo as we did for research on all the above-named diseases and in that same year the bill for chewing gum came to twice that figure. A nation that would spend three times as much for shampoo and chewing gum as it would for research into the prevention of these four deadly disease areas needs to completely reevaluate its ethical and material values.

Our most precious resource in America is the minds of our children. The figures on mental illness show that 1 in every 10 Americans is now suffering from some form of mental illness. Slightly more than one out of every two hospital beds in the United States is occupied by a mental patient. Yet 74 percent of all State mental hospitals are overcrowded. The overall annual cost of mental illness in our country today is estimated at approximately \$3,728 million.

The number of mental patients is growing rather than declining. The cost of maintaining them in our hospitals has increased almost to the breaking point in recent years. Yet, for a majority of these patients the only hope of recovery and restoration to a useful life lies in the possibility of new discoveries which remain yet to be made, developed, and tested by the research scientists of the world.

We can safely say that the gravest health problem in our Nation today is that of mental health. This again is a problem that knows no geographical bounds and is worldwide in scope. World leaders in the field have designated 1960 as World Mental Health Year. As the greatest health problem in the world today, we must move forward in the field of preventive medicine based upon extensive research to meet this sobering and challenging situation.

Thus far I have only mentioned those diseases that take their toll in the hundreds of thousands of lives or, as is the case with mental illness, remove millions of Americans from a productive life and make them an almost unbearable burden upon the resources primarily of our State and local governments. Actually the number of people who are being permanently crippled and disabled by disease and accident each year in the United States and in the world is much greater than the number who are being rehabilitated and restored to active life each year.

Over half the people of the world are suffering from malnutrition, not on a temporary basis but as a day-by-day fact of life. Recent primary studies in Minnesota on the results of experiments conducted on a group of conscientious objectors serving as voluntary guinea pigs have led many scientists to make the tentative hypothesis that much of the discontent, unrest, and threat of war which brood over the world may be traceable in part to malnutrition. This entire field should be the subject of intensive study in our approach to the problems of war and peace.

Today there are duplicate programs of research going on in various parts of the world. Considering the relatively small amount of money that is going into research much of this duplication is unnecessary and wasteful in terms of research personnel, money, and effort. Research development can be made anywhere in the world so that our problem is often one of communication. Progress is impeded when the results of this research are not made known to all those interested at once. Not only should there be a more rapid flow and exchange of information but we need to greatly expand the program of training of research personnel.

This joint resolution would not only establish a National Institute for International Medical Research as part of the National Institutes of Health but it would set up a National Advisory Council for International Medical Research with membership drawn from a variety of interested fields under the chairmanship of the Surgeon General. The cost authorization would be \$50 million annually to be expended under the supervision of the Secretary of Health, Education, and Welfare, chiefly through the United States Public Health Service, and specifically the National Institutes of Health. The amount proposed to launch this program is small, indeed, when we consider the potential returns. As a people we cannot afford not to make this expenditure. Cancer alone is costing us \$14 billion in lost goods and services per year.

Most of mankind is surrounded by sickness and is helpless against disease yet freedom from disease is the most fundamental aspiration of every man and woman in the world. It is the research done now that will save lives in the years to come.

Mr. ROBERTS. Are there any questions? If not, we thank you for your appearance and testimony, Mr. McGovern.

Mr. MCGOVERN. Thank you, Mr. Chairman.

Mr. ROBERTS. The next witness is the distinguished Senator from Minnesota, the Honorable Hubert H. Humphrey. Senator, we will be glad to hear your testimony at this time.

STATEMENT OF HON. HUBERT H. HUMPHREY, A U.S. SENATOR FROM THE STATE OF MINNESOTA

Senator HUMPHREY. I should like to summarize my position on behalf of Senate Joint Resolution 41 and companion bills in the House of Representatives to establish a National Institute for International Medical Research.

First, however, I want to commend most heartily the legislators who have rightly become identified with this great objective. Wholly aside from any personal effort on my own part, let this be noted:

In the Senate, I refer, of course, to the distinguished chairman of the Senate Committee on Labor and Public Welfare, the Honorable Lister Hill, author of Senate Joint Resolution 41.

In the House, I refer principally to the Honorable John Fogarty, who, in connection with this legislation, as in so much other health legislation, has played an outstanding role. But there are other Senators and Representatives, as well, who have given of their time and energies generously for this cause. They have done so because they rightly and clearly recognize that in so doing they are helping their own constituents and the American people generally.

As a cosponsor of Senate Joint Resolution 41, my points on behalf of this legislation are basically twofold:

1. Enactment of this legislation is in the enlightened self-interest of the American people. It will pay handsome dividends to 175 million Americans and to generations unborn.

2. Support of international biomedical research on the part of our Government, fortunately, already exists. The only real question is whether this research will advance on the strongest, best coordinated basis or whether it will be on a limited basis in which it will fail to realize its fullest potentialities.

FINDINGS BY SENATE SUBCOMMITTEE

For justification of these two points, I cite the factual findings of the international health study, conducted since last August, by the Subcommittee on Reorganization and International Organizations, Committee on Government Operations of the Senate. It is my privilege to serve as chairman of this subcommittee.

In the conduct of its work, we have been endeavoring impartially to gather the facts on world research, as required under our authorizing resolutions, Senate Resolution 347, 85th Congress, and Senate Resolution 42, 86th Congress. We have not sought to find the case for or against any specific piece of legislation, for that is outside our jurisdiction. Rather, we have simply compiled facts and judgment from the best research brains in the world; we then have let the facts speak for themselves.

I, for one, believe that the facts as assembled do, indeed, justify the two conclusions stated above.

DIVIDENDS TO THE AMERICAN PEOPLE

Thus, turning to the first point, we note that—

1. Biomedical research will pay handsome dividends to the American people. The greatest dividends are intangible. I refer to the incalculable reduction of human pain and suffering and the curbing of premature death among our people.

Last week, on July 22, 1959, our subcommittee released the fifth committee print in its series. This publication was entitled "Cancer: A Worldwide Menace." It shows that cancer today is destroying one-quarter million American lives per year and, all told, 2 million lives throughout the world. It shows that cancer costs the United States tangibly around \$12 billion a year.

But it also shows that the war against cancer is a worldwide war. Throughout the world, scientists and physicians of many nationalities

are battling this affliction. In all parts of the globe, there are clues to the conquest of the disease. No one can tell from which country may come the crucial clue or from which may come the remedies, based upon following up on these clues.

Let me cite further documentation prepared by our subcommittee. It may be recalled that last November we issued a publication entitled "International Medical Research." This was the very first of our committee prints. It subsequently became Senate Report 160 of the 86th Congress.

This document showed historically the enormous indebtedness of the American people to foreign scientists. Indeed, there is no single field of science in which we as a Nation are not the beneficiary of foreign discoveries.

Science has always been universal. Boundaries do not exist in terms of discoveries by the human mind and followup on those discoveries.

NEED FOR EXPLICIT LEGAL AUTHORITY

I cite now a further publication, our second print. This was entitled "Statutory Authority for Medical and Other Health-Related Research in the U.S. Government." It is a compilation of the texts of all the statutes by which various Federal agencies conduct medical research, either at home or abroad.

A key conclusion of that print was that at present the executive branch is, unfortunately, lacking in explicit legal authority for supporting biomedical research beyond our boundaries. Yet, such research is amply authorized in general terms under the broad powers of the Surgeon General of the U.S. Public Health Service. The print urged that the general authority be made explicit. This is precisely one of the key goals of Senate Joint Resolution 41 and the companion House bills.

To make such authority explicit is good statutory practice from any standpoint. Let us, in effect, give a clear mandate to the executive branch.

PRESENT LIMITED SUPPORT SHOULD BE EXPANDED

I turn now to the second major point:

2. In the current fiscal year the National Institutes of Health are expected to spend some \$5 million in connection with their oversea activities. These present activities follow approximately the same pattern as is envisioned in the event a new National Institute for International Medical Research is authorized and a larger program becomes possible.

Financially, the present oversea work represents around 2 percent of total NIH expenditures. Thus, we are spending in connection with oversea biomedical science around one-fiftieth of what NIH is spending here in the continental United States.

I think that everyone would be agreed that the needs of American scientists and laboratories should be adequately attended to, first and foremost. At the same time, I believe that most fair-minded observers would also agree that scientific genius elsewhere in the world, particularly in emerging countries, represents so important an actual and potential resource that it could well stand strengthening on our part.

No one can make a quantitative estimate as to the abilities and potentialities of foreign, as distinguished from domestic, medical science. But I think that it would be the consensus that scientific genius abroad could well absorb more than 2 percent of our overall biomedical research efforts. In turn, it can and does contribute infinitely more than 2 percent of total new discovery. So, I conclude that the cross-fertilization of ideas between scientists outside our borders and those within our borders is well worth absorbing more than one-fiftieth of our total finances. Let the ratio become larger by adding to existing NIH authorized sums.

For some to argue that "NIH appropriations have increased spectacularly over recent years" does not in itself actually represent an argument against this bill. The important point is not that domestic NIH appropriations have increased but that the genuine need for these appropriations has increased. Congress has wisely responded to that need. It has responded to the American people's sound desire to curb the tragic toll of disease.

Now, once more, the American people urge that a new phase of the need be met. So, I hope that, once again, Congress will respond to the American people's sound desire.

Research pays off. It has paid off, for example, in other spheres to American business in commercial terms. It has paid off to U.S. defense.

Now, above all, let it pay off still further, and in this instance for the 14 million Americans with cardiovascular ailments, the 11 million with mental ailments, and millions more with diverse afflictions. Time to them and to all of us is precious.

No one knows whether a single grant overseas may produce a crucial link in the chain of discovery which can lead to the conquest of a major disease. A single \$10,000 to \$15,000 or so grant may unearth a new fact, a new theory, a new concept, a new instrument, a new process whereby a breakthrough can become possible.

SUMMARY

In summary, Senate Joint Resolution 41 or its companion House legislation should be enacted.

Moreover, it should, in my judgment, be enacted with a full \$50 million authorization. It is clear, as I pointed out at the time of the Senate hearings, that no matter what the ceiling, it will take some time before anything like that amount of money can be effectively spent. Even, however, after such time has elapsed, there are adequate safeguards to prevent the expenditure of as much as a dime which might not be fully justified. But let us not set the ceiling, or, in another sense, the target, too low.

The fact of the matter is, the National Institutes of Health have proven their ability to administer this type of program wisely, economically, and in the best interest of the American people.

There is no reason why we should lack confidence in NIH in the future. There is every reason to believe that it will follow the same high standards in its enlarged oversea work as it has in its limited international work to date, and just as it has in its more extended work here in the United States.

In conclusion, I express my sincere appreciation to Chairman Roberts and to the subcommittee for kindly permitting these comments to be reprinted in the transcript of the hearing. I know that you will give, as you have already given, this subject your most earnest consideration. In so doing, you will add further to the laurels and appreciation which are your due from a grateful American people.

Mr. ROBERTS. Are there any questions? We are delighted to have had the benefit of your testimony, Senator.

Senator HUMPHREY. Thank you, Mr. Chairman.

Mr. ROBERTS. The next witness is our colleague from Vermont, the Honorable William H. Meyer. Mr. Meyer, we will be glad to hear you at this time.

**STATEMENT OF HON. WILLIAM H. MEYER, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF VERMONT**

Mr. MEYER. I appreciate this opportunity to testify in support of Senate Joint Resolution 41, known as the Health for Peace Act. The U.S. role in an expanded international medical research program will be an important and vital part of an attack on world health problems.

According to leading authorities, a program of international cooperation in research is one of the most urgent needs of medical science. This joint resolution would provide the authority, the funds, and the governmental machinery for U.S. cooperation. I do not want to discuss the bill in detail, but I do want to emphasize the importance of international cooperation for health research. It has often been pointed out that disease does not respect national boundaries. What could be more logical than an international attack on diseases and health problems? Officials of the International Cooperation Administration have pointed out that expanded research on sleeping sickness, cholera, and various virus diseases would be a boon to the less-developed countries. Other diseases, such as cancer, heart disease, and cerebral palsy, are increasingly important in almost every nation or area.

As one who has worked as a scientist and as a pathologist, I am impressed by the type of cooperation in training and research envisioned under this measure. It would make possible worldwide coordination of work on research projects, in training, and for technical assistance. Facilitating the exchange of information on medical research will be extremely valuable; without easy communication, it is possible that the significance of discoveries could be lost for years. Financial aid to research projects, fellowships to individuals, and technical assistance will all aid international medical research in needed ways. The encouragement and strengthening of present international medical research activities is also valuable.

From a scientific point of view, potential advances under this program of international research offer tremendous opportunities to mankind. In addition, such a program permits the United States to assume positive leadership in a constructive manner. A program of this sort will demonstrate our deep interest in humanitarian endeavors and the problems of peoples everywhere.

As this subcommittee knows, this proposal has received wide support. A distinguished group of witnesses have testified in favor of it, and it has already received Senate approval. Vermont church groups have endorsed this Health for Peace Act, and their resolutions have been made a part of the record of these hearings.

Favorable action on this joint resolution should result in major advances in medical science, and should promote international understanding. Every citizen of the United States has an important stake in this program. I urge the subcommittee to approve the resolution, and I hope that it can be brought to the House floor for early and favorable action.

Mr. ROBERTS. Mr. Meyer, we appreciate your appearance and testimony.

Mr. MEYER. Thank you, Mr. Chairman.

Mr. ROBERTS. The next witness has already been introduced to us. He is Dr. Howard A. Rusk, who is vice chairman of the Committee on Health for Peace, of New York City.

We are delighted to have you with us, Dr. Rusk. I had the privilege of meeting you at the affair downtown which was given in honor of Senator Hill recognizing his fine work in the field of health. And we know of your work with the people of our country and other countries in the field of health. We know, that you are an expert in this field, and we are very happy that you see fit to give of your valuable time by coming here to be with us. You may file your statement for the record and proceed as you desire.

STATEMENT OF DR. HOWARD A. RUSK, PROFESSOR AND CHAIRMAN, DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION, NEW YORK UNIVERSITY, BELLEVUE MEDICAL CENTER, AND ASSOCIATE EDITOR, THE NEW YORK TIMES

Dr. RUSK. Thank you very much, Mr. Roberts. I am deeply grateful for the privilege of being here this morning, and especially grateful to my old, old friend, Mr. Cannon, for coming in to introduce me. He did this in the way that he always does things. I did not know that he was coming until he appeared at the hearings, and I am deeply grateful to him for taking the time out of his very busy assignment here.

I would like to file a prepared statement for the record, and then I would like to speak very informally for a very few minutes, if I may.

Mr. ROBERTS. Without objection, the statement will be filed for the record.

(The prepared statement of Dr. Rusk, referred to, is as follows:)

PREPARED STATEMENT OF HOWARD A. RUSK, M.D.

My name is Howard A. Rusk. I am a physician specializing in rehabilitation services for the physically handicapped. I am professor and chairman, Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, and an associate editor, the New York Times.

I have served or currently serve as a consultant in rehabilitation to the New York City Department of Hospitals; the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare; the United Nations and the International Labor Organization. I am a member of the Expert Committee on Rehabilitation of the World Health Organization and a member of the Board of Rehabilitation Consultants of the World Veterans Federation. I have been a member of

the Armed Forces Medical Advisory Committee; the Council of the National Institute on Arthritis and Metabolic Diseases; was chairman of the Health Resources Advisory Committee, Office of Defense Mobilization, and chairman, National Advisory Committee to the Selective Service System from 1950 to 1957; and am currently a member of the Public Health Council of the State of New York.

Among my voluntary interests and activities: I am president, World Rehabilitation Fund; chairman, American-Korean Foundation; past president, International Society for the Welfare of Cripples; and am a member of the board of directors, International Rescue Committee, the board of trustees of the Institute of International Education; the Public Policy Committee of the Advertising Council; board of directors, American Bureau for Medical Aid to China; Medical Advisory Committee, MEDICO; and the Committee for the Handicapped, People-to-People.

I am also or have been at some time a member of advisory groups associated with the National Foundation, the National Society for Crippled Children and Adults, and the Arthritis and Rheumatism Foundation.

I have listed the above affiliations for the purpose of showing my deep professional and personal interest in the International Health and Medical Research Act of 1959.

I am also executive vice chairman, Committee on Health for Peace. This is a newly formed ad hoc group consisting of many of our Nation's leading scientists, clinicians, businessmen, and civic leaders organized to increase public understanding of the principles underlying increased U.S. support of international health work. The Committee on Health for Peace believes in the principles of the International Health and Medical Research Act of 1959.

In both my prepared and extemporaneous testimony here today, I do not testify as a representative of the Committee on Health for Peace or any of the organizations listed above. I testify as an individual citizen and physician who believes sincerely that the passage of this legislation would be of incalculable value to both international health and understanding.

In May 1956, I had the privilege of testifying before the Senate Foreign Relations Committee on the importance of increased support by our Government of international health work. At that time, I said "It is my belief that rehabilitation of disabled children and adults is one of the sharpest tools and most effective instruments which we in the United States have for making friends—a tool which can penetrate any Iron or Bamboo Curtain to reach the minds and the hearts of men. It is natural for all of us to take improved agriculture, industry, and utilities for granted but men often regard these developments as somewhat remote from their immediate problems. Rehabilitation, however, makes a personal and significant impact not only upon the disabled person himself and his family but on those with whom he comes in contact."

It is indeed gratifying to me that we have progressed to the stage now, 3 years later, when the International Health and Medical Research Act of 1959 has actually been introduced, has passed the Senate, and that now this distinguished committee will hold public hearings on it. I am also extremely gratified at the tremendous public interest and support for this legislation. Many of our Nation's leading newspapers have already given strong editorial support to the International Health and Medical Research Act of 1959. The newspaper with which I am associated, the New York Times, has had many, many letters commending it upon its strong editorial stand in favor of this legislation.

When Gen. Omar N. Bradley sent out his letters of invitation to a cross section of leading scientists, clinicians, businessmen, and civic leaders to join the Committee on Health for Peace, there were but five persons who declined his invitation to membership and in four of these, the writers stated their strong belief in this proposed legislation.

Since the Committee on Health for Peace was announced, we have received hundreds of letters from American leaders in all walks of life asking if they might become members of the committee and hundreds more of other individuals who wrote us of their deep interest and belief in the significance of the legislation asking how they might help.

During these hearings you will hear from many distinguished American scientists and civic leaders. I should like, therefore, to confine my statement this morning to (1) outlining for you briefly the developmental steps leading to the introduction by Representative John Fogarty; (2) the internationality of medical

research and service; and then (3) speaking briefly of the significance which I attach to the inclusion of the resources and programs of the Office of Vocational Rehabilitation and the Children's Bureau in this legislation.

BACKGROUND AND DEVELOPMENT

Technological advances of the 20th century which have created a shrinking world in terms of communications, transportation, trade, and devastating effects of modern weapons of warfare. Mankind through the ages has been forced, for practical purposes, to develop social concepts to fit the realities of his changing environment.

I, for one, and I am sure this concept is shared by the great majority of people in the world regardless of their race, religions, nationalities, or professions, believe this growing recognition of mutual interdependence has not resulted solely from practical necessity. I believe it also represents our ability as our society matures to give fuller expression to a feeling that is as old as mankind itself—to the desire to share with and help one's neighbor.

In the field of research, health, medicine, and rehabilitation, we have a uniquely effective area of service and of responsibility for working toward international understanding. Health, including rehabilitation services for the handicapped, is fundamental to the prime democratic concept of equal opportunity for all. A world in which good health is enjoyed by but a few cannot be a politically stable world. How can the man who is doubled up by pain and disability stand up and fight militantly for the principles of democracy and freedom? Unless he can work and produce, how can he enjoy the fruits of his own labor and become a customer for the goods which all of the world wants to sell him? Unless he can produce and earn and then buy from the rest of the world, how can his standards of living be increased?

Good health is fundamental to economic self-sufficiency. Dr. Charles W. Mayo summed up this relationship aptly when he said with great simplicity: "Poverty makes people sick—sickness makes people poor."

The International Health and Medical Research Act of 1959 would be a major contribution toward breaking this chain described by Dr. Mayo.

This legislation, known popularly as the Health for Peace bill, would create within the National Institutes of Health a new National Institute of International Medical Research with an annual appropriation of \$50 million.

These funds would be used to encourage and support research and the exchange of information on research, the training of research personnel and the improvement of research facilities throughout the world.

The bill would authorize grants to support such activities ranging from research in basic science to research in rehabilitation. Grants could be made to foreign and American universities and research organizations and to voluntary and governmental international agencies such as the World Health Organization.

Under the plan, a National Advisory Council for International Medical Research, composed of nongovernmental leaders, would establish policies, make recommendations and approve grants and loans under the program.

The existing specialized Institutes within the National Institutes of Health (e.g. National Heart Institute, National Cancer Institute, National Institute of Neurological Diseases and Blindness, National Institute of Arthritis and Metabolic Diseases, and others) and the Office of Vocational Rehabilitation and the Children's Bureau would serve as the technical groups to advise the new National Advisory Council for International Medical Research on specific projects within their particular area of interest and competence.

The program would not replace any of our current programs of multilateral international health activities through the World Health Organization or UNICEF or any of our bilateral activities conducted through the International Cooperation Administration, but could cooperate and assist in research projects of such organizations, when indicated.

Nor would it supplant the research programs being conducted in the United States through the National Institutes of Health. It would enhance these activities and at the same time provide a mechanism and funds for uniting science throughout the world in a greatly expanded global attack on disease and disability.

The key factors in grants from the new National Institute for International Medical Research, over and above the usual criteria applied to research projects, would be their international implications.

Although there are innumerable corollary values in the International Health and Medical Research Act of 1959, it is based primarily on recognition of the fact that research in health, medicine and rehabilitation is so highly complex and interrelated that victory over any disease or disability can be achieved only through the research results of many scientists, clinicians, public health specialists and vocational rehabilitation specialists throughout the world.

In his state of the Union message in January 1958, President Eisenhower proposed a "Science for Peace" plan to "attain a good life for all." As the first step in such a program, the President invited the Soviet Union to join the current 5 year program for the global eradication of malaria. The President then stated our willingness to pool our efforts with the Russians in other campaigns against cancer and heart disease. "If people can get together on such projects," he asked, "is it not possible that we could then go on to a full-scale cooperative program of science for peace?"

A very modest start toward the general objectives of the plan is already underway with the \$300,000 grant made by the United States to the World Health Organization for a preliminary study to lay the groundwork for medical research on an international basis. This grant was announced by Dr. Milton Eisenhower, president of Johns Hopkins University, as the personal representative of his brother, the President, at the annual World Health Organization assembly in Minneapolis in June.

Dr. Eisenhower said at the time that the United States was prepared to give such a program "substantial support." Earlier this month (February 1959) the Executive Board of the World Health Organization meeting in Geneva approved a 6-point program for extended medical research drawn up by the Director General of the World Health Organization, Dr. M. G. Candau, as the result of the instructions he received at the World Health assembly in Minneapolis last June.

Last September, in a speech before the General Assembly of the United Nations, the late Secretary of State John Foster Dulles pledged that the President would seek funds from this current session of the Congress for international health programs. Following that statement there appeared in the press reports that Secretary of Health, Education, and Welfare Arthur Flemming had gathered together a group to work out a plan for an international health program which President Eisenhower would incorporate as his international health recommendations in a special health message to the incoming 86th Congress.

In August 1958, Senator Lister Hill, introduced Senate Joint Resolution 199. Similar legislation was then introduced in the House of Representatives by Representative John E. Fogarty. Since last August, Senator Hill and Representative Fogarty have sought and received the advice and suggestions of many Members of Congress, responsible officials within the executive branch of the Government, national and international agencies concerned with health, medicine, and rehabilitation, our colleges, universities, and research institutions, and many, many individual citizens. These suggestions have been carefully considered and many are included in the International Health and Medical Research Act of 1959.

REHABILITATION

I should now like to shift to the second of the two major points I shall discuss with you this morning—rehabilitation services of the physically handicapped. As most of you know, this is the area of service to which I have dedicated my life for nearly the past 20 years and in which an increasing percentage of my time, resources, and energies have been devoted to the international aspects of rehabilitation services for the handicapped.

In this country and in the other developed parts of the world we have seen a remarkable growth of interest in rehabilitation in the last decade. This interest has not been prompted by humanitarian motives alone. It has resulted from the growing incidence of physical disability resulting from prolongation of the life span, increased public assistance costs because of disability, and our need for manpower in our expanding economy.

But what lies behind the interest of Indonesia, Korea, the Philippines, Mexico, India, Burma, and Thailand in the provision of rehabilitation services for their handicapped? It is not the need for manpower, for these nations have far more manpower than they can profitably utilize in their present stage of industrial development. It is not to reduce public assistance costs, for few of these nations have any social schemes whereby the disabled become a responsibility

of the state. It is not to reduce demands for medical, hospitalization, and social services, for the chronically ill and disabled in most of these nations are wards of their families rather than of the state.

The real reason is that many of these nations, particularly those of the Africa-Asia area, have, after years of colonization, recently achieved the long-sought dream of political independence. Now they are desperately looking for ways of proving to the world, and more importantly, to themselves, that they have the political and social maturity to justify their political independence.

There has been a tendency in some international health programs to establish such high priorities for the first two phases of medicine—prevention and definitive medicine and surgery—that the third phase of medicine—rehabilitation from the bed to the job—has been neglected. In countries with advanced rehabilitation programs, such programs have provided their social and economic worth through reducing the time of invalidism of the individual thereby saving in the cost of hospital or institutional care, sickness benefits, and disability pensions, and most importantly, restoring the disabled individual to a useful life in productive employment.

In nations at an early stage of economic, industrial, and social development, particularly when mass problems of public health and unemployment or underemployment are present, rehabilitation to some has seemed a problem of less urgency. The economic and social values of rehabilitation may be present to a lesser degree in these nations than those in an advanced economic, industrial, and social development, but the importance of rehabilitation from the standpoint of humanitarianism and human rights and liberty is far, far greater. I cite to you a statement made by one of the most eminent scientists and health authorities in Asia, Hon. Paulino J. Garcia, M.D., Chairman, National Science Development, Republic of the Philippines. Dr. Garcia, then Minister of Health for the Republic of the Philippines, said before the 10th World Health Assembly, May 20, 1957, in Geneva: "It is a fact that the rehabilitation of our tens of thousands disabled is an imperious need. It is a fact that my country and many others want to establish rehabilitation services."

Many leaders throughout the world, not only in Asia but in Africa and South America, share the view stated by Dr. Garcia. When then Premier U Nu visited the United States, he stated publicly that of what he had seen in the United States, the thing he wanted most for his country were rehabilitation services. Happily, through a grant from the Rockefeller Foundation, a team of five Burmese were brought to the United States for training in rehabilitation. They are now back in Burma where with the aid of the United Nations, International Labor Organization, World Veterans Federation, World Rehabilitation Fund, and the International Society for the Welfare of Cripples, two rehabilitation centers are in operation.

I visited Burma for a week last November as a consultant to the United Nations. At that time I saw and helped develop a number of significant research projects in rehabilitation which could be conducted at these two centers. Preliminary information on these projects is already in the hands of the Director, Office of Vocational Rehabilitation, and these research projects could be initiated within a very short time if the International Health and Medical Research Act of 1959 is enacted and becomes law.

We in the United States provide world leadership in rehabilitation, but we have no monopoly on creative imagination, ingenuity, and research potentials. In the scores of visits I have made to rehabilitation programs over the world there has not been a single instance in which I have not learned something new which could be utilized here in the United States to make our own programs more effective. Through these visits I know of scores of significant research projects which could be implemented rapidly if this legislation is adopted which would have significant value to our own rehabilitation efforts here at home.

Through the outstanding research work in prosthetics conducted through the Prosthetics Research Board of the National Academy of Sciences in cooperation with the Veterans' Administration and the Office of Vocational Rehabilitation, we have the finest artificial limbs the world has ever seen. Yet, two of the most significant developments in prosthetics in recent years have come from Germany—the suction socket and the Heidelberg arm.

The work being done in rehabilitation of the brain injured in Finland; with blind persons with other physical handicaps in the Soviet Union; in plastic surgery and rehabilitation for lepers in Hong Kong and Vellore, India; in occupational health and employment of handicapped workers in the Scandinavian

nations; in geriatric rehabilitation in Australia and the Scandinavian nations; in the use of bamboo for braces in Hong Kong; in the socio-medico-economic areas of disability evaluation, workmen's compensation, pensions, and disability benefits in many nations—all of these and many other examples could be given of fruitful areas of research which could be immediately developed if this legislation is passed.

I have been in the Far East four times in the past 5 years. On my last trip, which was this past November and December, I visited, observed, and was consulted about rehabilitation services for the handicapped in New Zealand, Australia, Thailand, the Philippines, Hong Kong, Japan, and Korea, as well as Burma. In each of these countries there is tremendous interest in extending and strengthening rehabilitation services for the handicapped.

Irrespective of national barriers, race, language, dogma, or culture, physical disability creates the same economic, social, and personal burdens everywhere in the world. Rehabilitation services to help the handicapped to help themselves is one of America's most potent instruments for making friends. Our present need for enduring friendships with other countries has never been so great. Rehabilitation offers a unique opportunity for increasing understanding between peoples.

This is one of among many, many valid reasons why I firmly believe statutory provision for the inclusion of vocational rehabilitation must be contained in the International Health and Medical Research Act of 1959. I have the same basic belief about inclusion of the resources, skills, and program of the Children's Bureau. Dr. Martha Elliot, Harvard School of Public Health, who is both a former Director of the Children's Bureau and a former Deputy Director General of the World Health Organization, will speak on this point later in these hearings.

It is natural for all of us to take improved agriculture, industry, and utilities for granted. Men regard these developments as somewhat remote from their immediate personal problems. The child formerly confined to bed or wheelchair, however, wins an entirely new future when he enters school with normal youngsters; equally important, his family has firsthand reasons to know how and why their life is transformed. The man who had to crawl, and now walks to work, never forgets his conquest over what seemed hopeless difficulties—nor who helped him.

With a relatively small investment in research in rehabilitation, a tremendous impact on the individual lives of human beings throughout the world can be made. Among the crippled, paralyzed, palsied, blind, deaf, mute, arthritic, rheumatic, tuberculous, cardiac, and malformed are members of the great majority of every family in the world.

It is no longer uncommon in America to see handicapped men and women holding responsible positions in industry, operating businesses, and following successful careers in the arts and the professions. Only a few years ago in most States, equally capable people with the same handicaps were considered hopelessly disabled, destined for lifelong dependency upon family help, public relief, or private charity.

Our own emphasis on rehabilitation in the United States under the leadership of our public agency, the Office of Vocational Rehabilitation, has demonstrated the values which we, in a democracy, place upon human worth and capabilities and the right of every citizen in a democracy, irrespective of his physical limitations, to the inherent dignity of an individual human being. The politically uncommitted nations of the world plus our friends in many of the less developed areas of the world look to the United States for help in their search to place a higher value on human worth.

The International Health and Medical Research Act of 1959 is essentially a humanitarian program directed toward a global assault on mankind's most important enemies—disease and disability. But it has tremendous political implications, for its rehabilitation aspects emphasize our belief in the United States of America that man's mission on earth is to heal and not to hurt, to build and not to destroy.

CONCLUSION

The people of the United States have demonstrated, through their willingness to contribute both tax and voluntary funds, their firm belief in the value of research in health, medicine, and rehabilitation. Most, I am confident, will also agree that while we and the rest of the world are spending billions of

dollars for research for instruments of death and destruction in our struggle for survival, we should spend a few millions positively on promoting health, happiness, and human understanding in our struggle for peace.

Sir William Osler said at the turn of the century, "Medicine knows not nor has ever known international boundaries." The entire history of medicine has been international. Microbiology was born in Holland, bacteriology in France, immunology in England, sulfanilamides came from Germany, penicillin from Great Britain, insulin from Canada, rauwolfia from India, and so on through history. The secret of penicillin lay for years in the notebook of Sir Arthur Fleming, and rauwolfia was known to Indian native doctors long before it was found by modern clinicians in the United States to be one of the most potent tools we possess in the treatment of high blood pressure and certain mental disorders.

Who knows what knowledge now lies fallow that if brought to light might be the key in the solution of the problems of cancer, arteriosclerosis, or arthritis?

This program is one of enlightened self-interest, for in addition to the dividend of international understanding, we may be supporting a program that will save us.

Over 300 years ago an English philosopher once said, "If every man would but mend a man, the world would all be mended." The International Health and Medical Research Act of 1959 is a significant step toward this goal.

Dr. Rusk. I am a native Missourian, and before the war I practiced internal medicine in St. Louis for 17 years. I went into the Air Force, and it fell my lot to set up the rehabilitation services in the Air Forces, and we started with one service in one hospital and ended with a program in 253 hospitals and 12 rehabilitation centers. Such a program was then started in the other branches of the Armed Forces, and when the war was over I became so deeply convinced of what could be done for severely disabled people that I gave up my practice in St. Louis and went to New York to teach and to write about the problems of disabled people.

It has been heartening that in this little more than a decade this subject is now being taught in more than 10 percent of the medical schools. The expanded program now operates in the Veterans' Administration hospitals, where I was their original consultant, and now it is considered to be the third phase of medical responsibility, the first being prevention, the second definitive medical and surgical care, and the third that program that takes the patient from the bed to the job.

I have over the last decade been chairman of the Doctors Draft Committee set up by you in the Congress and the Health Resources Committee, ODM, chairman of the board of the American-Korean Foundation, and president of the International Rehabilitation Fund, a voluntary group set up to further international rehabilitation throughout the world.

I am interested in this bill for two reasons. The first is the fact, as Mr. Fogarty has so ably said, and as you pointed out, that this is enlightened self interest. And by being the yeast in the world's loaf, if you will, I think that there is more than a chance that we may add to our total knowledge to find some answers to the great enigmas in medicine today that cause suffering and premature death throughout the world.

And second, I feel that there is a dividend to this program, that may be realized by working together. For I have never been any place in the world excepting the Soviet Union and Poland, where, when you talked about the problems of disease and the problems of crippled

people, this world, that is so technologically precocious and spiritually adolescent, could not speak a common language. And I think the dividend is also very important.

That is why I was deeply gratified by the President's statement in his state of the Union message in 1958 and became interested in trying to help in a modest way as a private citizen in the furtherance of these objectives, and became the vice chairman of this national citizens committee.

I had a very unique experience in this particular job, because I called General Bradley on the telephone and explained what we were trying to do, and he accepted the chairmanship from the civilian side, with a telephone call, and I called Dr. Detler Bronk, the president of the Rockefeller Institute, and he also accepted on the telephone. I personally wrote to 200 distinguished citizens and scientists in the United States and got 195 positive replies in 30 days. Of the five who could not join, four were on interlocking boards and would have to go to their boards to get permission, and all of the five wrote endorsing letters for this legislation.

As I say, it was a completely unique experience to me. And since that time I will say to you that we have had letters from hundreds, literally thousands, of individuals, hundreds of scientists, saying that they believed in this, and what could they do to help.

The New York Times, of which I am the associate editor and which has supported this legislation editorially, has had a great deal of mail about it, and all of it favorable.

That is a little background about the general.

Now I would like to speak a little bit about the specifics. As Mr. Fogarty said, everyone knows that medicine has always been international. You can go back into history, and you see it very clearly when you recognize that microbiology came from Holland; immunology, vaccination came from Great Britain. The X-ray came from France. The best understanding that we have of endocrine glands, the pituitary, came from the Argentine. Sulfonamides came from Germany. Anesthesia came from the United States. Insulin came from Canada. Penicillin lay fallow in Fleming's notebook for years, until it finally came to light, and then, with the utilization, with making this a useful tool, both by the medical profession and our scientists and our great pharmaceutical industry, it became a practical reality, because we in the United States made it so. Cortisone came from the United States, and it came from a very simple observation by two great scientists. And that is that patients with arthritis got better when they became jaundiced, and women when they became pregnant. And they put those two facts together, and then they went to the common denominator and found it in the adrenal gland with cortisone, and the opening of an entirely new field in the treatment of arthritis.

Rauwolfia, one of our most potent drugs in the treatment of high blood pressure and certain mental disorders, was used by the native doctors in India for hundreds of years. And finally a sample happened to come to the center in Boston doing research on antihigh blood pressure drugs. And we came this close to missing. It was used for 2 weeks, and nothing happened, and they were about to give it up, and then said, "We will try it 1 more week." And then Dr. Wilkins describes so vividly how at that time the pressure came down. Didn't

know the dosage, didn't know anything. Now we have a tool, in its concentrated form, that has changed the whole picture for millions of people all over the world.

In my own interest, the rehabilitation of disabled people, as I say, I have been on missions throughout the world, and in our own Department and at our own institute we have now trained more than 300 doctors from all over the world. I would like to feel that they are permanent ambassadors for our way of life, because they have learned not only the techniques but our feeling about the dignity of people. And I have never been any place in the world that I have not learned something, as well as, hopefully, given something.

Just this past week, day before yesterday, if you will, I had a package in a bamboo box from Hong Kong from a young doctor there named Harry Fang. It was a set of bamboo splints and crutches and braces made with a special process from rattan, which could be produced at a fraction of a fraction of the cost of our modern braces. They did it because they had to do it. They had no steel. But it gives us an entirely new substance with which to work if we need this temporary adjunctive help that in the past we did not have.

Mr. Fogarty spoke about my feeling about patients that come from other countries, that have become symbolic. One that he spoke of was a little boy from Bolivia, who was found by a young U.S. physician on a cancer teaching mission in Bolivia. He saw this little boy born without arms and legs in a mission hospital. He wrote and said: "Couldn't you possibly bring this child up here? He is so bright. His mother and father are dead. He has no one in the world, and he should have a chance."

I said, "We have no money. I don't know how we could do it."

But I have learned a long time ago that you do not say "No" too quickly, so I said: "Send the pictures and send the record, and you never can tell."

The day the report came, I was late for an appointment with the secretary of a distinguished American, and these pictures were on top of my mail file, and she saw this little torso and asked me about him, and I told the story about as I have told it to you. She said, "Well, he will come up. I have always saved my money. I have no family, and I will adopt this child while he is in the United States."

One of the airlines flew him up. He arrived 3 weeks later, speaking only two phrases in English, "please," and "thank you."

That is 3 years ago now. This child wears the most expensive pair of legs in the world. But he walks back and forth to parochial school every day. He is the president of his class.

I am getting a little ahead of my story, because just 3 or 4 weeks before he came up, the Vice President of Bolivia, now the President, was in New York. And I invited him and the Ambassador to the United States to lunch. They knew all about Juanito. In the middle of luncheon I tossed a bombshell. I said, "If we bring this child here, it will cost you a very large fee. The fee is this. If we bring this child to New York and demonstrate what can be done with the most severely disabled child in the world, you have to promise me two things. In the first place, that he will get the best education your country can afford when he returns home, and secondly, that you will establish a rehabilitation center in La Paz. We will train the people for you."

Last month the young doctor and his nurse went back to La Paz and started the first rehabilitation center in that city.

Well, this story was reported in Newsweek about a year after he was here. I have not sent him home, because there was no place to send him. A sea captain wrote from Tampico to the editor. He said, "Congratulations on your story. But why did you publish it under medical news? Why didn't you publish it under international news, under that \$75 million give-away to Brazil? We just came from Brazil, and nobody thanked us for the \$75 million, but when we were in La Paz this time something happened that never has happened to me in 75 years. Dozens of strangers came up on the street and tapped me on the shoulder and said, 'It is a wonderful thing you are doing for little Juanito.' One said, 'I think this little boy has done more for our relations in this part of the world than anything else we have done.'"

I could go on with armless boys from Chile and whatnot. That is a facet.

What have we learned from this boy? We learned something about the equilibrium of the human being and how the middle ear can adapt. This child, when he came to us, could only get around by rolling, and he could roll as fast as you would walk. He could roll and turn and never become dizzy. And we found out some facts about equilibrium that we had not known before.

We are all interested in the problems of the aged. We think this is a new problem. It is new and increasing with us, because the expectancies have increased from 46 in 1900 to above the 3 score and 10 today. Three years ago I was at a meeting at The Hague, and I went to a center in the middle of the city. And it was the old age center, and it was 5 o'clock in the afternoon. And the old people were coming back for tea. And out in front of each one of the little apartments was a little flowerbed about this square. And each one was different. One had geraniums, and one had a rose bush, and one rugged individual had a tall stalk of corn. But it was their garden. It was one of the happiest places I have ever seen. They had brought their furniture and their pictures and what-not. And I walked into the night, and there was an inscription over the door, and I asked for it to be translated, and it said, "Established in 1652."

In Australia last November I saw the finest settlement for old people, where the old gentleman from the Church of England who established it and who lived there himself at 77 said, "Doctor, when people come here, they live until they die."

We have this problem. We have 15 million people in the United States beyond the age of 65, and we have much to learn from them. And from the Orient, if you will, from the place of the Papa-san and the Mama-san, in the family and community life of this part of the world, where they occupy a place that has not been established in our country as yet.

Just day before yesterday—Mr. Roberts, I think this will interest you—we had a proposition, if you will, from Denmark, in which the country is building a new laboratory which sets up a control room with the eight controls on a human being at work. On the individuals' back, at work—and this is all in a little pocket radio that goes in his pocket or pocket apparatus, the size of a small radio—on his back

goes a small container that he can work with perfectly adequately that measures his oxygen consumption. So we can tell for the first time just as accurately as goes on in our scientific ballistic program the problems of fatigue and injury rate, the problems of the cardiac at work that require the most energy, and they write and say, "We would like to team up with you in this program in the United States." It is not being done any place else in the world.

From Norway, at the World Veterans' Federation meeting in Rome in April, they come to us with an evaluation of 200 prisoners of war in Norway that have been carefully studied and have shown what deprivation apparently does—with an increased disease rate, an increased emotional breakdown, and, it looks like, a very much shorter span of life. They say, "We would like to expand this and study it all over the world to see what we can do to prevent it."

And would it not be a war deterrent if we knew that it was not the people who were killed on the battlefield or wounded there, but something happened to human beings that lasted as long as they lived? This is the type of thing that I am talking about when I talk about health for peace.

I would like to say also that I agree with Mr. Fogarty that \$50 million cannot be spent the first year. But I would like to point out to you that there never have been such safeguards on spending as there will be in this bill, because this bill will have as its advisers all of the institutes, cancer, heart, mental health, and so forth. And they have as their advisers their study sections. So this institute really gets double check and double information on all of the research projects that come to it.

Whether it is needed or not, I think, to me, is obvious. But again the letter came to me, dated July the 15th, out of a clear sky. And I would like to give you a moment or two of history.

Four weeks ago I had a call from a young lady in Washington who said that she was associated with Peter G. Harnden Associates, who had been retained by the State Department to arrange for the American exhibit, the health exhibit, in the big Berlin Fair in September. And she badly needed advice, because, she said, they were over the deadline.

She first discussed showing our prosthetic devices. That did not seem a very good idea to me, because the two best developments in prosthetic devices in the last 20 years have come out of Germany—the first the suction-socket leg, which we have modified and perfected, and the second the artificial arm that operates from a small tube of carbon dioxide gas and makes it automatic.

So I suggested that possibly the self-help devices for severely disabled people—and we in our program have developed more than 3,000 in the last 10 years under a grant from the Polio Foundation. They have practically none there. She thought it was a good idea. And we have helped her set up the exhibit and furnish the material.

I also suggested that the new artificial muscle developed for paralyzed people in this country at the Ranchos Los Amigos in California and at the great medical center in Houston, Tex., would be completely unique. So she immediately went down, and she saw this muscle, with a secretary typing with artificial muscle operated from a belt around her waist. And she was very much intrigued, and she felt that should be a key part of the exhibit.

So I received this letter on July 15 from the USIA, signed by Mr. Joseph I. Crine, the Exhibits Division, Information Center Service:

It was reported that Dr. Nadine Coyne and Mr. William Tossberg

the first is a physician in charge of our training program and the second in charge of our prosthetics research—

will both be in Europe about the time of our exhibition. Naturally, we would be very anxious to have these two specialists available for direct assistance in the rehabilitation section. There would certainly be many professional inquiries. Would it be possible for you to arrange the extension of their European tours? I must add that unfortunately we have no funds here for any expenses which may be incurred by this extension.

Miss Witt was most impressed with the secretary's adaptation and efficiency and felt she would be a splendid advertisement for the work being done in this area with catastrophic diseases. Apparently Dr. Spencer is particularly proud of her. What do you think of this approach to the rehabilitation story, and have you any suggestions of how we might finance this idea?

This to an institution that runs in the red every year and that gets no subsidy from Government—State, city, or Federal.

It pointed out so vividly to me the need for this kind of thing—if we feel that by sharing our knowledge we can let the world know how we feel about disabled people—that I wanted to include it in the record.

In our own institute, as I said, in the last 10 years, we have trained more than 300 physicians. We have 61 at the present time, from 34 countries. The best study on the great problems of the hemiplegic has been done by an original piece of research from a young physician fellow from Japan. Other fundamental research projects in electronics have been done by physicians from Finland and Denmark and so forth. Eighty percent of those physicians have been brought here by funds that have been raised from industry going from door to door and asking for help.

I believe that as international industry has a stake in this program, so do we in the Federal Government. As I said before, I think that this is enlightened self-interest, that we are going to find things that help us to help ourselves, and in addition we have this magnificent dividend of international understanding.

A British philosopher said it nicely 400 years ago when he summed it up in a sentence, that "If every man would mend a man, then all the world would be mended."

Mr. ROBERTS. Thank you, Doctor. I think there may be some questions.

We are deeply grateful to you for your very fine and wonderful presentation. I think undoubtedly you have made a very fine argument for this type of legislation.

I would like for you to elaborate a little bit on how you think we might best approach this problem, that is, whether or not you favor the handling of the international program under the International Institute. I suppose you would have the headquarters here, and it would simply be another institute similar to the National Institutes. How would you solve that problem?

Dr. RUSK. I sat for 3 years as a member of the National Institute of Arthritis and Metabolic Diseases. I am well aware that moneys can be spent for international research at the present time. I am also

well aware that only a token of a fraction is spent because, in spite of the great understanding and generosity of the Congress, there are still unfilled research opportunities in the United States or requests that have not been filled. They ran more than a hundred a year on the arthritis and rheumatism council, when I was on it, at least.

My feeling is this: that it is set up as an institute of health, except in the structure of the National Institutes, but it would be that dealing with international research problems.

As I said before, to me, it is such a simple organizational structure, because in the International Institutes all of the other specifics, in cancer, arthritis, neurology, blindness, mental health, and so forth, would be the advisers as to specific research projects to the National Institute. If they needed assistance, then they get it, again, from their study section, as it is set up by law.

This Council, I feel, should be individuals in science who know research and who know the international field, and from the civilian side would be individuals who are interested in health and science, but who also know the international field.

I feel, very frankly, that if you had two projects that were absolutely equal in merit, and one came from a country where it would be very beneficial to demonstrate our feeling to that country—I think Burma is a good example. I was there in December. They have a tenure of life there of 29.3 years, compared to our a little over 71, with an infant mortality of a little over 300 per year—crying for help. An excellent medical school. One physician there, doing very, very basic research in cancer. If we had the choice of using this money on equal scientific opportunity in a country like this, which is right in the middle between the Communist-dominated world and the free world, that would be, if everything else were equal, a factor, in research grants in the international program.

I do not know whether I have answered your question clearly or not, Mr. Roberts.

MR. ROBERTS. My point is this: Should it be handled primarily as outlined in the Hill bill, as Senate Joint Resolution 41? Should it be handled by an international institute approach? Or should it become a part of the foreign policy of the administration, through the State Department?

DR. RUSK. No, sir. I feel very deeply that this is a scientific program. It should be handled as a scientific program, with coordination, of course, with the State Department. But I just do not believe that there is the mechanism there to handle such a scientific program, nor is there the mechanism in the field.

MR. ROBERTS. Now, in the results that we would hope to accomplish and the objectives we would hope to reach by such an approach, do you feel that these funds should be primarily appropriated by the United States? Or should we invite appropriations from other nations? Should it be a sort of a contributory thing as far as the other nations of the world are concerned, were we all to share in these things?

DR. RUSK. Let me backtrack a little and say that I am one who has always supported, been interested in, the World Health Organization. I think they do a splendid job. But their work has been in the past primarily, and properly so, in the field of epidemiology and chronic

diseases. Malaria is still the No. 1 killer in the world, as we know. A billion out of the 2 billion people in the world live in malarious areas, and there are 2 million cases a year.

I think that this in the beginning should be a U.S. program. I think that whenever we can ask for matching funds from a government or from an institution in support of research, it should be done. But I do not think that we should deny a hopeful project in some part of the world where matching funds are not available. I think we would be cutting off our nose to spite our face if we did that.

And, second, I feel that it is important for the world to know that we in the United States, as a country and as a people, are doing this because we believe in it; that we believe in sharing. And if the World Health Organization or the Sanitary Commission, the counterpart, the Pan American Sanitary Commission, the counterpart in South and Latin America, would come to this institute with a research project, it could be approved for them, just as it could for the University of Upsala in Sweden, if you will. That is my feeling about that particular point.

Mr. ROBERTS. You mentioned some of the contributions which have been made by other countries, in various aspects of medical advancement. What are some of the advantages, to be purely selfish, that you think we might realize from such a program?

Dr. RUSK. Well, for one thing, at the present time—let us take the Soviet Union. They have just completed a series of observations, reportedly, on 6 million individuals who have had the live polio vaccine. By cooperation—and they say they are willing to cooperate, and I believe in this field they are, from my experience there, and from the exchange of literature and films and whatnot in the rehabilitation field—we could gain a tremendous lot of information by this, the largest experiment, with the use of and problems in live polio vaccine, that might save years of painstaking repetition, and lives in addition.

Everybody is familiar with their institute of surgery, of experimental surgery, in Moscow, and the two-headed dog. It really is a surgical stunt, but it has great application. It was made possible by a special machine using small vitalium clips that can sew together a blood vessel a little larger than a broom straw, or it can put in 12 at the same time. It saves a tremendous amount of time. It was reported this morning that under local anesthesia, this anesthesiologist from the United States watched a complete lung removed in 12 minutes. It takes us about 2 hours. Now, I would rather have my lung removed under the 2-hour method. Do not misunderstand me. But she reported—she, a specialist in this field—that we had much to learn from the Russians in the use of procaine as an anesthesia.

I know of their monkey colony at Sokoli, which is the finest in the world, where since 1929 they have had a complete health and genealogical record of this monkey colony, which is the best source for behavioral research and certain types of physical research that we have, because it is the best research animal.

In the Soviet Union, in my own field of rehabilitation, I was tremendously impressed with only one thing they had in rehabilitation, and that was their program for the physically disabled blind. They reported 350 industries for the blind throughout the Soviet Union and

360 blind schools. They have a blind symphony orchestra in Moscow. They are integrated into industry. They have a pay schedule. The earnings over their regular pay of the ordinary worker go into the all-Soviet Research Institute for research in blindness. That is one illustration.

Another was the one I have just gotten the other day from Denmark. There is the best colony for the treatment for the severely brain-injured person in Finland that I have ever been to, any place in the world. We need some very badly here for the very severely-disabled people who need to live and to work in a sheltered existence.

Some of my colleagues have visited the various research centers for cancer in Great Britain and in Europe, and Dr. Rhodes has told me personally that he knows of scores of excellent leads in cancer research that are begging for support.

I think in many of those countries we could expect that they also would participate.

I would visualize this, that maybe we would want to bring a team from Belgium to Memorial Hospital in New York, or to the Cleveland Clinic, or Western Reserve, or what-have-you, to work as a team, utilizing our facilities. We may want to send a team there. I would expect, if we did, that they would be given the right of use of facilities and the help of the staff and all of that sort of thing.

That is the kind of cooperation that I visualize. But I would like to say this in the beginning: That we have "done this because we believe in it, and we invite you to come and join us."

Mr. ROBERTS. Thank you very much, Doctor. We appreciate your appearance here.

Do the gentlemen of the subcommittee have any questions?

Mr. SCHENCK. I have no questions. I think the doctor has made an excellent statement.

Mr. ROGERS of Florida. I want to say how much I have enjoyed listening to the statement of Dr. Rusk. It was very excellent.

In Senate Joint Resolution 41, for instance, I believe you would have a Council appointed of all Americans; is that true?

Dr. RUSK. Oh, yes.

Mr. ROGERS of Florida. I wonder what participation we could expect from other nations if the entire Council is made up of American nationals. What effect do you feel that would have in getting the cooperation, for instance, of France, England, or some of these other nations, if they had no membership on the Council?

Dr. RUSK. Mr. Rogers, I do not believe it would have any. I believe that they would recognize this as something that we were trying to do. I think that specialists in the various fields should be invited to come, as consultants or as witnesses, or to join in discussions of various projects. But my feeling is that this is our tax money, and we have the right to spend it for the things that we think will do the most good for us and for the world. And if they want to come in and participate, that can be done on an arrangement between projects specifically, and not in totality.

Mr. ROGERS of Florida. I just wondered what assurance they might demand, as to whether the information we had would be available to them if they had no voice.

Dr. RUSK. I believe that the world pretty well understands now that we feel that in health this is common knowledge, and we want to share it. And I think this is another evidence that we do. And I do not believe, personally, there would be any problem.

Mr. ROGERS of Florida. I just wondered if you felt there would be any problem. And the amount of funds you think would be necessary to start the program, and your estimate, say, for the first 5 years.

Dr. RUSK. I could not give it as to the first 5 years. The first year, this late in the fiscal year, I would think that possibly \$10 or \$15 million to start would be sufficient, but I do not know. I would think we would have to see what experience dictates, and then come back and see what has been done and what the opportunities are for the future, and stand on the merits. But I could not give you that estimate.

Mr. ROGERS of Florida. What about the supervision of research projects that might be done in other countries, that we would, as I understand, provide funds for?

Dr. RUSK. I think there would have to be site visits just as we do here to the various institutions that have received grants. Of course, there is a regular report, and then, if there is any question, there is a site visit.

Mr. ROGERS of Florida. You feel, though, that some supervision would be necessary?

Dr. RUSK. Oh, yes.

Mr. ROGERS of Florida. And you envision research programs all over the world?

Dr. RUSK. I do; yes, sir.

Mr. ROGERS of Florida. Thank you very much, Doctor.

Mr. ROBERTS. Anything further, gentlemen?

Mr. BROCK. Just one question. I do want to compliment Dr. Rusk on his very fine statement.

I would like to ask you, what progress is being made in the muscular dystrophy field and in multiple sclerosis? Is the progress impeded by lack of funds or lack of scientists to further probe into the fields of those two illnesses? It does not seem to me we are making the progress in those two fields that we should. Is it because of lack of funds?

Dr. RUSK. Well, there is a great deal of basic research going on in both fields, and I think there is more money that could be spent, and certainly we need more scientists. We have been doing a study for the last 5 years in our own institution on the rehabilitation of children with muscular dystrophy. It is a different problem, because we know that unless something happens, they are going slowly down hill. So you have to set up a program to meet their needs of living today, and then be willing to go down, have to go down, as the condition changes.

Multiple sclerosis is a very interesting problem, and there is an international twist to that.

Now, it has been said by some that multiple sclerosis is practically unknown in China and parts of the Orient, where there is a great deal of filth, lack of sewer facilities, and lack of proper sanitation. There are others who say that it just is not diagnosed. There are some who say that it is true because there is a lack of trace elements in the food

in countries that use artificial fertilizer. And that has been a controversy, and a study that has been going on for a long time. There are two sides.

It well illustrates the problems of epidemiology and the opportunities in epidemiology of some of these various diseases.

Now, there are a lot of new leads in this whole field. In Parkinson's disease, as you know, there has been a great breakthrough within the last 5 years by Dr. Irving Cooper's clamping the anterior choroidal artery, the little artery that goes to the globus pallidus, and when that happens like that the tremors stop. And now a method has been devised for injection. Just recently, in the first three patients, the intention tremor of multiple sclerosis also has been stopped by injecting in a little area in the brain right adjacent to this. Again, it opens an entirely new lead. And I think this is one of the things that lends itself best to the whole international epidemiological approach.

Mr. ROBERTS. Thank you, Dr. Rusk.

Dr. RUSK. Thank you, Mr. Chairman.

Mr. ROBERTS. It seems as if this is Missouri's day. I see we have General Bradley with us, who is also from Missouri. And we are happy to have you with us, General. You may come around and proceed as you wish.

This committee is of course highly honored to have you with us today, and we will not attempt to identify you. I think you are pretty well identified as far as the American public is concerned, anyway. But we are happy to have you. And you may file your statement or proceed, as you will.

STATEMENT OF GENERAL OF THE ARMY OMAR N. BRADLEY, CHAIRMAN, COMMITTEE ON HEALTH FOR PEACE

General BRADLEY. Mr. Chairman and members of the committee, I am pleased to be asked to appear before your committee in such a worthwhile cause. One of my voluntary activities is as chairman of the Committee on Health for Peace, of which Dr. Howard Rusk, who just left this stand, is the executive vice chairman.

I am in hearty accord with the purposes of this proposed legislation. While others will be able to give you more concrete and definite details of medical research, I have had some experience in the conduct of medical and rehabilitation research and in some phases of international relations.

For over 2 years, as Administrator of Veterans' Affairs, in 1945 to 1947, I was charged with the establishment and maintenance of proper medical care for over 100,000 hospitalized veterans. We also had the major problem of assisting in the rehabilitation of disabled veterans. During this period, I was fortunate in having advice and assistance of several outstanding men.

More recently, in 1954 to 1957, I was closely associated with the California Institute for Cancer Research, as chairman of their board.

In international relations, I have had some experience in working with people of other countries, particularly those of NATO. Thus I know something of the value of having common interests.

We spend large sums of money trying to help the peoples of other countries. Probably the most appreciated assistance is where we try

to help solve the health problems of our neighbors. And today, of course, every nation in the world is our neighbor.

I can think of no greater plan for common understanding than to join with other peoples in solving our common health problems.

Why not tie these efforts together for the common good? Maybe by exchanging research information we can more quickly and effectively solve our own health problems.

I am sure that Dr. Rusk told you how many of our important advances in medicine and surgery have been discovered in various other countries. I understand that the Russians have developed certain surgical and medical techniques which should be of great interest to our medical profession, and some of these are now on display in New York. Furthermore, I believe this legislation would assure better coordination of our own medical research efforts.

For example, many groups are working on detection methods and treatment of cancer. Many of these groups have made some advance in our knowledge of this disease. Maybe if all this knowledge could be combined with discoveries in other countries, we could cope more quickly and more successfully with this dread disease.

I have not tried to analyze the administrative setup of this proposed legislation, but I am sure that your committee and the Department of Health, Education, and Welfare will assure proper administrative machinery.

I am in thorough agreement with the purposes of this resolution.

Mr. Chairman, that completes my prepared statement, but I will be glad to try to answer any questions which you may have, sir.

Mr. ROBERTS. Thank you, General.

I have no questions. I would like to say this. In your statement, you made the statement that you were Administrator of Veterans' Affairs for 2 years. And I want to personally pay you a tribute, because I followed the hospitalization of veterans quite carefully during that period, and I certainly remember the vast improvement that was brought about during your term as Administrator of Veterans' Affairs.

General BRADLEY. Mr. Chairman, I had a lot of very fine help, including that of Dr. Rusk and many other outstanding doctors, and at that time I was able to get some very fine doctors coming out of the services. So about the only credit I can take is that I encouraged some good people.

Mr. ROBERTS. I might say that I think, too, that that high level of efficient treatment has continued since that time.

General BRADLEY. Yes, sir.

Mr. ROBERTS. I find it true in the veterans' hospitals that I visit in my State, and in my area.

It is a pleasure to have you, and we certainly appreciate your giving of your time to come here and present this statement in support of this legislation.

Any questions, gentlemen?

Mr. SCHENCK. Mr. Chairman, I would like to join my colleague, the chairman of our subcommittee, in the statements he has made and commendations he has offered on behalf of our honored guest.

General BRADLEY. Thank you.

Mr. ROGERS of Florida. Mr. Chairman, it is always good to hear and see General Bradley.

I notice you say that you feel that proper administrative machinery can be worked out, General. I was wondering what you thought of the similar question I asked of Dr. Rusk. Do you feel that the other nations of the world will cooperate in developing a program where we would share information, information they may have as well as the information we may develop, if they are not represented in some way on the council or have some say-so in how the organization will work? I wondered what you thought their reaction might be.

General BRADLEY. I personally do not believe you will have any difficulty working as a group. Scientists get so interested in what they are trying to do—scientists and research people—that they forget politics in general. And I would not be afraid of any difficulty as far as the scientists and research people themselves are concerned. And probably the outstanding example would be Russia. I think on lines like this we would not have any trouble even with the Government, in getting permission for their scientists to work with ours on health matters. I think we now have better relations on those lines than any other, as far as the Russians are concerned.

Mr. ROGERS of Florida. I think that is true, too. From my understanding that is true. But I wonder, now for instance, where Dr. Rusk brought out the point about Burma, saying if all things are equal, there is a country that might be influenced by a positive demonstration of our friendship if we could give them information that would be helpful. I wondered if some of the other countries that might not necessarily want to build our friendship in that area would not want to cooperate in a program of this kind.

General BRADLEY. Of course, that is one of the purposes of the legislation, as I see it. Not only do you speed up medical research as it applies to ourselves, but also as you help other people you have another means of communication, communication with another class or group, that is, scientists and research people, medical people. And I think if we are ever going to get away from this period of tension, it has got to be done on the civilian or citizen level, rather than on the governmental level. And this is just another means of breaking down the barriers between peoples. Just like we had a good example over the weekend in Philadelphia in the track meet. From what I have heard of that, it was a very fine get-together of two peoples whose governments are at odds. And the more people or more classes of citizens we can get together to exchange ideas, the quicker we will get understanding, in my opinion.

Mr. ROGERS of Florida. The point I was trying to make was just how effective you thought we could develop cooperation with Russia, in specific terms, where we are trying to get knowledge to countries like Burma, as was brought out, because they may feel that since this is our own institution, we are doing it for our own good, rather than just for the people of Burma. You see the point I was trying to make. I just wondered if we could expect their cooperation and whether this is a practical program.

General BRADLEY. I think that is a good point. This is a start. We do it, and then maybe some other nations will set up the same kind of machinery, an organization with whom we can work.

Mr. ROGERS of Florida. But at least you think we could develop their cooperation without any difficulty?

General BRADLEY. I think we could get most of them. There may be exceptions, of course. There are always a few that are slow to come in. But I think in general we would have no trouble getting people to set up a similar organization or give us someone with whom we could deal. Of course, we have to have some way to administer it ourselves. We cannot just throw it outside of Government.

I do not think that would present too much of a problem.

Mr. ROGERS of Florida. Thank you very much, General.

Mr. ROBERTS. Thank you, General. We appreciate your appearance.

Our next witness is a former Member of Congress who has distinguished himself in many fields. He of course has a fine record in the Congress and has distinguished himself as a Marine. I speak of Maj. Gen. Melvin J. Maas, USMC, retired, who is chairman of the President's Committee on Employment of the Physically Handicapped, Bethesda, Md.

General, it is a real pleasure to have you. We also have a Minnesotan on our subcommittee, and I think he would like to have a word to say at this time.

Mr. Nelsen.

Mr. NELSEN. Mr. Chairman, I certainly want to take the opportunity, the pleasant opportunity, of welcoming Mel Maas in his appearance before this committee. As has been mentioned, he is a former Member of the Congress, and has distinguished himself in the military, but better than that, I might say that back home we all love Mel Maas, and we regard him as a man of courage and distinction. He has a stout heart.

Now, that is the best I can say for him. We are glad you are here, Mel, and we would like to hear your testimony.

**STATEMENT OF MAJ. GEN. MELVIN J. MAAS, USMCR, RETIRED,
CHAIRMAN, PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE
PHYSICALLY HANDICAPPED**

General MAAS. Thank you, Ancher.

Mr. Chairman and members of the committee, both as Chairman of the President's Committee on Employment of the Handicapped and as chairman of the People-to-People's Committee on the Handicapped, we are vitally interested in this legislation.

I might say that the People-to-People's Committee on the Handicapped has unanimously and enthusiastically endorsed this bill.

We would, however, strongly urge the Congress to include provisions to make it possible to conduct international exchange research on rehabilitation leading toward job placement.

Now, we feel basically that there is no field in which we can demonstrate to the world the character of the American people and the true heart of Americans better than in the field of international medical research. We think there is nothing that will so effectively correct the distorted picture of Americans as being mercenary and dollar-mad as to engage in such a humanitarian activity as exchanging medical research.

We are convinced that it is in our own best interest, and that we will gain doubly, Mr. Chairman.

First of all, there is no question that the American people will gain directly in medical benefits from such research. This is one case in which the whole is far greater than the sum of the parts. We know that there are times when there will be American medical research being carried on in a given project, and a parallel project in some other country, and both of them getting close to it from opposite or different approaches; and by pooling their approaches, suddenly the solution becomes apparent; where either one may have found it, but it might have taken years for the solution. But the pooling of the researches means that those suffering from this disease have that suffering alleviated much, much quicker. And this is going to apply as much or more to Americans as other people.

I believe that the American people will gain far more from the enactment and carrying out of this legislation than we will put into it. But we gain in many other ways. There is, of course, the direct benefit to the American people, in the medical knowledge that will be gained by exchanging with other people. And there are many of them who have carried medical research in certain fields far beyond where we have. We can gain a great deal of time by exchanging with them.

And by the same token, there are fields in which we have advanced further than other countries have in their medical research, and they will gain from us. But in addition to that is the very important gain in friendship.

We must convince the peoples of the world that we are interested in them primarily because they are fellow human beings; because suffering from illness, disease, or accidents, dismemberment, blindness, is a universal language. It makes no difference what color, race, creed, origin, or national location; suffering is the same. And anything we can do to contribute toward alleviating this suffering is going to make for better relations among all peoples, not just between the American people and other peoples, but among all peoples. And that is the one way that we can hope to bring about man's oldest and most cherished dream, which is universal and lasting peace.

I think the world situation has frankly come to the point where the solution of this problem of perpetual threats of war and perpetuating a war situation in the world has gotten beyond the power of the generals and the admirals and the diplomats to solve. The time has come when, if we are to meet this challenge, it has got to be done by peoples themselves, by peoples getting to know each other, to understand each other, to create a neighborliness throughout the world that will ultimately make it impossible for governments to take peoples to war with each other. If they know each other, if they understand each other, if they have been helping each other to help themselves, a time will come when, as I say, governments just will not be able to take peoples to war.

Now, we know we do not want war. We want peace. And we can demonstrate that by contributing to other peoples of the world, starting with the field in which I am so interested, the physically handicapped, their restoration and training, and helping them to get jobs.

I have attended a great many international conferences, representing peoples from all over the world, in the last few years, primarily in connection with handicapped veterans. And I know the way they have been thinking, and I know what their aspirations and their feelings are.

There is one thing, Mr. Chairman, that is universal in all human beings, of all ages, of all times, of all races and colors. And that is a burning desire for dignity. It transcends all other aspirations and desires and hopes.

Mr. Chairman, it is pretty hard for an individual to maintain dignity if he wants to work and cannot get a job—just because of lack of understanding on the part of employers and the general public.

Now, to cure the ills and the diseases and the accidents of the peoples is only half of the job. It is not the complete cure. For a large segment of the population, after they have been medically treated to the limit of the medical knowledge, there is still, for these individuals, the biggest therapy, which is work therapy. There are these men and women who want to support their families and who have been medically prepared to work, but have either not had rehabilitation training or, through lack of knowledge and understanding upon the part of the employers—and that is true in our own country, Mr. Chairman. We are working hard to eliminate that situation, and we are making great progress. And we have created a worldwide reputation in the last few years on our great movement in this country of jobs for the physically handicapped.

Rehabilitation is an essential part of it. But if we can help the peoples of the world to attain their dignity by getting back their self-respect, through working, through taking their place in the community as full members of that community, so that they can support their families in dignity and in decency, then we will have done much toward bringing about a mutual understanding in the world that will be leading toward the day when wars will no longer be either necessary or possible.

Certainly, no one has a greater stake in peace in the world than the American people. No people have ever attained such a high standard of living as we have. Therefore, we have the most at stake.

And I might just say in passing that while there are certain segments of the world who are challenging our way of life and who try to make the word "capitalism" a dirty word, there is never any reason why we Americans should apologize for our capitalism, where our industry and our capital are owned by the people, as against the system where the capital is owned and operated by the state, because under our system, of free enterprise, and the incentive motive, we have created the highest standard of living ever known at any time in history at any place in the world. In fact, I might just call your attention, Mr. Chairman, to the fact that our standard of living is so high today under our system that for most Americans the two principal problems are where to park and how to reduce.

Now, I would just like to leave you, Mr. Chairman, with this. In my rather long career, rather varied, in the military and in business and in politics, there is one thing I have learned. That is that it is far better to have friends and not need them than to need friends and not have them. I think this bill, if properly implemented, will make us friends, and as a result we will have friends all over the world. We hope we will not need them, but we will have them.

Thank you.

Mr. ROBERTS. Thank you, General. We certainly appreciate the fine statement you have made and the fine contribution you have

made to the work of our subcommittee. It was very generous of you to come, and we are very grateful for your appearance.

Your prepared statement will be included in the record.

(The prepared statement of Major General Maas is as follows:)

REMARKS OF MAJ. GEN. MELVIN J. MAAS, USMCR, RETIRED, CHAIRMAN, THE
PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE PHYSICALLY HANDICAPPED

Mr. Chairman, members of the committee, I come before you in a dual capacity, both as Chairman of the President's Committee on Employment of the Physically Handicapped and as Chairman of the Committee for the Handicapped, people-to-people program. Since 1947, the President's Committee has shown a sustained interest in the increased utilization of all available manpower. The Committee for the Handicapped, formed 2 years ago, is particularly interested in those of the world population who bear the burden of disability, including the retarded and emotionally disturbed.

The Committee for the Handicapped has voted enthusiastically to endorse the International Health and Medical Research Act of 1959, so I am here primarily in my people-to-people capacity since the President's Committee does not endorse legislation, although the Chairman is free as an individual to give testimony as requested.

May I at this time repeat what I said before Senator Hill's committee. Testifying on March 4, 1959, I said, "During the past few years I have attended several international conventions and congresses both in Europe and on the American Continents and I have always come away with the deep personal conviction that rehabilitation is truly the pathway to peace, that in healing the bodies of mankind we are making a giant step forward toward healing their souls with the saving chrism of peace in our time. Many of the people to whom rehabilitation has come almost like a saving genie out of a bottle in this 20th century are little concerned with politics or the strategy and tactics of wars hot or cold. But, the men, women, and children, whether brown, yellow, black, or white, who have been healed by the modern miracles of rehabilitation in the last postwar decade and in the bitter aftermath of Korea, these world citizens now understand that the language of disability is universal and that the white-clad doctor and nurse or the neatly packaged saving serum are advance agents of world brotherhood and of a world at peace." So much for repetition.

The President's Committee since 1947 has tried hard to work with countries around the globe in making available to them the fruits of our labors. Many nations are very much interested in our work and we have always been willing and eager to share our reports, brochures, minutes, and films with them.

In particular, I should like to emphasize the importance of broadening your legislation to spell out the availability of funds for research into the employment phases of medicine and rehabilitation.

We feel very strongly that medical research is urgent, vital, and important. But of what avail is all this research if the man in Pakistan or the woman in Lebanon has no job to go to after the medical miracles have been accomplished.

Therefore, we hope the House will insert a section calling for research angled to employment.

You have the Senate committee testimony. I refer your staff to those remarks of Dr. Ross T. McIntire, my distinguished predecessor, where he has said it so well that without a job, rehabilitation, science, and research are failures as far as the individual affected is concerned.

As Dr. McIntire has said so well, we perpetrate a fraud upon the individual and the taxpayer if we rebuild a body and then permit it to stand useless.

If I may again repeat myself, in conclusion, I should like to share with you my last paragraph before the Senate committee. "We are living in an age when man's latest and greatest inventions are a constant strain upon our imagination and understanding, and, while it is quite understandable that we should be concerned with man's inventions, including those of medical science, we also must not overlook God's greatest invention—man. In our opinion, it is not enough to merely discover, important as are discovery and research. We must also utilize and popularize these discoveries and put them to work for man. We must put public relations to work in making useful the genius that results from laboratory and operating room research, and we therefore respectfully

hope that your act will be sufficiently broad so as to enable the Secretary of Health, Education, and Welfare and his associates to translate abroad the results of medical and rehabilitation research so that people everywhere may have a better chance of working. Galen some 2,000 years ago said truly, 'Employment is nature's best physician. It is essential to human happiness.'"

This bill will provide for mutual exchange and therefore will be of as much or more benefit to the American people as they will contribute to other peoples of the world. It is in our own self-interest that this bill be enacted into law. Thank you for the opportunity of sharing my views with you.

Mr. ROBERTS. Any questions, gentlemen?

Mr. NELSEN. None, other than to thank Mel again for appearing here. And certainly his enthusiasm is something we can all use a lot of.

Mr. ROBERTS. Our next witness is Dr. Douglas Talbott, chairman of the Scientific Council, Dayton Area Heart Association, Dayton, Ohio.

I am sure our colleague, Mr. Schenck, would like to introduce the witness.

Mr. SCHENCK. It is a pleasure to welcome Dr. Talbott here, not only because of his well-known ability and interest in research and the fine job he is doing, but also so that Ohio might have at least a small portion of this hearing today.

So we will now have the opportunity of hearing Dr. G. Douglas Talbott, cardiologist, of Dayton, Ohio, who is a cardiovascular consultant for the Aero Medical Laboratory at Wright-Patterson Air Force Base, and who has worked closely with Col. John Stapp, who has also appeared before our committee on many occasions.

Mr. ROBERTS. We are delighted to have you, Dr. Talbott. You may file your statement for the record and proceed as you wish.

STATEMENT OF G. DOUGLAS TALBOTT, M.D., CHAIRMAN, SCIENTIFIC COUNCIL, DAYTON AREA HEART ASSOCIATION

Dr. TALBOTT. Thank you, Mr. Chairman.

Mr. Schenck and members of the committee, it is certainly a pleasure to be here. As Mr. Schenck told you, I am chairman of the Scientific Council of the Dayton Area Heart Association. I am cardiac consultant to the Aero Medical Laboratories of the Wright Air Development Center, the Air Research and Development Command, and I am chairman of the Research Council of the Kettering Medical Center and on the President's Youth Fitness Commission.

For the sake of temporal restrictions, I would appreciate the opportunity of submitting my statement for the record, and would like to make just a few extemporaneous remarks.

Mr. ROBERTS. Without objection.

(The prepared statement of Dr. Talbott is as follows:)

Mr. Chairman, members of the Committee on Health and Safety, my name is G. Douglas Talbott, and I am a cardiologist from Dayton, Ohio, practicing half time and doing half time cardiovascular research. I am chairman of the Scientific Council of the Dayton Area Heart Association, a member of the President's Advisory Committee for Youth Fitness, chairman of the Research Council of the Kettering Medical Center, and cardiovascular consultant to the Aero Medical Laboratory, Wright Air Development Center, the Air Research and Development Command, Dayton, Ohio.

It is a great pleasure to be here today and to testify before your committee, and especially before the Honorable Paul F. Schenck of Dayton, Ohio. The

international research bill, in my opinion, is one of the most vital and forward-looking bills that has been presented to the Congress in the health field. You have heard distinguished people here today speak for this bill, and the Senate of the United States had perhaps the greatest array of medical talent in the United States before it who also enthusiastically supported the bill.

In both my prepared and extemporaneous testimony I am testifying as a representative of research in a local area of the United States outside the confines of a large teaching institution. This represents another facet of research interest in this country. It is my desire to acquaint the committee with the enthusiasm and the hopes that our area has for the passage of this bill.

Through the forward look of the Congress of the United States the greatest health and research institution in the world has been built, the National Institutes of Health.

As a cardiovascular researcher, I have been particularly acquainted with, and impressed by, the National Institute of Health's National Heart Institute which has been so ably administered and run. In the last few years it has made a tremendous contribution to the overall problem of heart disease and its potential is almost unlimited.

Now, again, the House of Representatives has another opportunity to make a giant stride toward the solution of diseases. Solution of these diseases rests, in a large part, upon research efforts. While spending several years in the U.S. Air Force I traveled throughout the world and I was tremendously impressed by the research projects undertaken in other countries. One of the greatest difficulties the research world has to face is keeping the lines of communication open between research efforts and attempting to form closer ties with other research groups in this country and abroad.

I am certain that it is obvious to you gentlemen that through research medical forms of therapy are discovered and cures of disease are obtained. Therefore these research efforts touch every one of us and may mean that hundreds of thousands of the citizens of this country may benefit from not only our efforts but from the efforts of other research groups in distant parts of the world. The research of today is the treatment of tomorrow.

It was perfectly obvious to our local research group after studying this bill that this was not, in any sense of the word, a giveaway program, but was a concrete step toward attempting to place research on a coordinated basis with a worldwide type of operation. This concept is a concept that must be developed if full benefit is to be realized from the many experimental efforts that are being made throughout this country and throughout the world.

Already members of the Senate have heard many distinguished physicians and laymen who have urged the passage of this bill. Your committee will also be presented with the opinion of some of the outstanding medical men in this country. The interest of these medical experts vary widely but have the common denominator of the necessity of coordinated research in the advancement of their field whatever it may be. In my own field of cardiovascular research particularly in the complex problems of atherosclerosis and coronary artery disease there are many intriguing facets which immeasurably benefit from a research program which allowed close cooperation between research groups in other parts of the world. For example—we know that cardiovascular disease is responsible for causing symptoms and signs in approximately 10 million Americans. Last year some 800,000 of the total deaths in the United States were attributed to this disorder. We are also aware that there are factors involved in the occurrence of this disease such as diet, fats, hormones, blood coagulation, and stress. We are attempting to ascertain what the role that these factors play and to what degree their relationship is to each other and what other factors may also be involved.

The monumental work which has been done by such investigators as Dr. Paul Dudley White, Dr. Ancel Keys and Dr. Stare on the incidence of coronary artery disease in Japan and the Orient as opposed to the incidence here as it relates to diet presents the need for a coordinated research effort with physicians in these countries. Much more work must be done in this field and further exploration must be made of the eating habits not only of the oriental countries but of the various individuals in the various nations throughout the world. We would not only give research information to these countries but we would also receive information from them, and a cooperative program would be most desirable.

The role of fat plays a similar part in the investigative efforts that are being made toward the conquering of this disease. Certain countries have far less

coronary artery disease than other countries do, and they eat far less types of one fat or the other. What the roles of these fats are has not been clarified at the present time, but tremendous strides are being made along these lines. Again, much more coordinated research remains to be done on the problem before it is clarified.

In discussing hormones—the immunity that women have until the time of menopause is an intriguing factor in the production of coronary artery disease. There is excellent work being done in the Scandinavian countries particularly Sweden on this problem. The coordinated effort would again be the most desirable goal for which to strive in studying the role of this factor.

Blood coagulation has been studied extensively here and abroad and we realize that the clotting factors in blood coagulation have some important part in coronary artery disease. A strong need exists to study this much further and to exploit the knowledge that we have in cooperation with the knowledge that is being gained by the experimental groups working on the same problem in foreign countries.

The role of stress is still another factor that will have to be determined, and of course you are all aware of the work that is being done by Dr. Seyle and his group in Montreal which is just one of many investigative teams working on the relationship of stress to coronary artery disease, high blood pressure and general vascular degeneration.

These are just a few cursory remarks about some of the factors involved in the degeneration of blood vessels to acquaint you with the fact that extensive research is being done in foreign countries as well as in this country. Understanding and common to the investigation of any of these factors and other factors that are involved in this disorder is the need for more knowledge and for closer lines of communication with research groups abroad.

After carefully studying this bill our own research groups in the area from which I come feel strongly that this is an excellent program, that we do not have any reservations about its goals, its functioning mechanics and its administrative structure. We know of no better investment for the people of our own country in which we will get far more than the actual dollars spent in terms of information on research efforts. Lastly, we cannot think of a better administrative and medical mechanical means than placing this as part of the National Institutes of Health.

In conclusion, I would like to point out that the world may differ in many perimeters of existence but that there is an unanimity among all physicians of all countries that coordinated research is the common tool directed toward the common goal which is the healing, prevention, and cure of disease. The international medical research bill represents a substantial gain toward the eventual realization to this goal.

Dr. TALBOTT. Today you have certainly heard some distinguished people. Dr. Rusk, of course, and others, both professional and lay people, have testified in the Senate and will testify before your committee for the passage of this bill.

As an individual, I represent perhaps another parameter of research. For research is a complicated structure. And that is the parameter of so-called grassroots research. We do research outside of teaching universities like to think of ourselves as perhaps the general practitioners of research; as necessarily our contributions are limited, because we have not had the training in large part that some of the other individuals in the larger institutions have. Our facilities are somewhat limited. But believe me, our enthusiasm is as strong as that of any research groups in the country. And while it was a great honor to be invited to discuss this research bill before the committee today, we felt that we had three major questions to answer in our minds in appearing before this committee.

And they were: No. 1, how would the international medical research bill help the people of the United States? And, for example, how would it help the people in our area?

And, No. 2, who is going to administer this bill?

And, No. 3, the question was raised by the research council in our area: Was this a giveaway program, a foreign aid giveaway program?

It was in the interest of trying to solve these three questions that we discussed this problem at some length. And I would like to just briefly acquaint you with our feelings along these three major lines.

As far as "How does this help the American people?"—being in cardiovascular research, I have to dwell perhaps on more detail along these lines.

One of the things that is very apparent to us in research all over the country and in the world is that the lines of communication, as far as worldwide research is concerned, are woefully lacking today. If we attempt to do research, we can very easily talk, at meetings, discuss our research findings, we can examine the literature throughout the country, but this is a much greater problem on a worldwide basis. We feel very strongly that the international research bill will open up the so-called lines of communication and allow us to profit from what is going on throughout the world. And I think that, as Dr. Rusk has so ably pointed out, and as has been pointed out by many other investigators, there is good research going on throughout all of the world. And it is not confined to the United States. We do not have a monopoly on good research efforts.

In the lines particularly of arteriosclerosis and heart disease, in which I am interested, when one discusses such things as diet, we realize that in Japan, in Africa, in Guatemala, among the Eskimos, and in Italy, there has been tremendous work done not only by our people going to these areas, but by the local people in these areas who are studying the same problems and trying to get these research efforts together. It is a monumental task. And I see certainly the international medical research bill as being the first really major concrete effort to combine these research efforts and to allow us to profit from their work by exchange of personnel, by exchange of ideas, and mostly by a mutual research program.

When one thinks of stress as it relates to heart disease and strokes, of course one has to mention Dr. Selier's work in Canada. And here is another example where we could combine our research efforts with personnel and people and ideas.

And the same is true of the hormonal work that has gone on in the Lowland countries and the Scandinavian countries, in heredity, and in the work with fat metabolism. When one thinks of Lundstrom's work and the work of the Swedes, we recognize that here tremendous efforts are being made, and strides which we know just a little bit about.

And the desirability is obvious, if we could get groups together who are mutually exchanging people and personnel and mutually working on the same problem.

So how does this help the people of the United States and even help our area? It helps it by making research much easier, by advancing the amount of effort, by perhaps years, by preventing repetition, and by giving to us the tool of common knowledge and the tool of working together on the common problem. And we feel that this is a very significant point and perhaps the greatest reason why the international research bill would be so helpful to us.

Secondly, the administration of the international medical research bill was one that we examined, we felt, with some feelings that this should be carefully analyzed. And we talked the other night about the National Institutes of Health. And I think it has been a remarkable tribute to the Congress and to such individuals as Dr. Endicott and Dr. Watt and Dr. Van Slyke and Dr. Meader, that they have been able to present to the physicians of America, down at our level, at least, the National Institutes of Health, where merit and ability appear to be the prime requisite, rather than any political influences or anything that does not smack of medical integrity. And I can think of no better group of individuals, or any better way to administer this program, than through the National Institutes of Health. The National Institutes of Health—and I believe I can speak now for our area—has won tremendous respect and has won tremendous admiration from each one of us. The people who work there have also won this respect.

The third thing that we examined was on the question of: Is this a giveaway program?

I feel this fact is inherent in answering the first problem of "Does it help us and the American people?" We are going to receive far more than just the money that is given into this area, because if you would make a survey today, which is impossible, in all of the countries, one would see a great deal of repetition and lost man-hours being brought about by the fact that there is not closer communication and there is no vehicle for bringing closer communication in the research world. I feel that, far from being a giveaway program, purely in the minds of research, this is a great opportunity and will bring to us manyfold what we bring into it.

I think that in medicine, whether we are in research or are clinicians or specialists or general practitioners, we all have a common goal, and that goal is the prevention, the cure, and treatment of disease. I firmly feel that the international medical research bill is a bill that is a tremendous stride toward the realization of this goal.

I have no other comments to make except, again, my appreciation for appearing before this committee.

Mr. ROBERTS. Thank you, Dr. Talbott. We have a good many eminent and distinguished witnesses today. But I certainly think you have made one of the finest statements of any of the witnesses we have had appear before us.

There may be some questions. I have none, except to say that I think you have made a very fine statement, one that was very full and complete and yet very brief.

Is there anything from the gentleman of the committee?

Mr. SCHENCK. Mr. Chairman, I would like to express my appreciation to Dr. Talbott and point out to my colleagues on the committee that Dr. Talbott is a fine example of why I am such a traveling chamber of commerce type of person, extolling the virtues of the great Third District of Ohio. I feel that he has made a very real contribution.

I would hesitate to ask any questions as they might possibly be considered as an effort on my part to obtain free medical advice in the record, so I will forgo that pleasure and just again thank Dr. Talbott for his statement.

Mr. ROBERTS. I would like to say I had the pleasure of meeting your little daughter the other day. I believe she is with you.

Would you stand up? [Applause.]

We were very glad to have had you, Doctor.

Is Dr. McIntire here?

Is anyone here to present a statement for him?

As I understand, his statement will be presented at a later date.

The committee will stand in recess until tomorrow morning at 10 o'clock at the same place.

(Whereupon, at 12 noon, the committee was adjourned, to reconvene at 10 a.m., Wednesday, July 22, 1959.)

INTERNATIONAL HEALTH

WEDNESDAY, JULY 22, 1959

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SAFETY OF THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to recess, in room 1334, New House Office Building, Hon. Kenneth A. Roberts (chairman of the subcommittee) presiding.

Present: Representatives Roberts, Rogers of Florida, Brock, Schenck, Devine, Rhodes of Pennsylvania, and O'Brien.

Mr. ROBERTS. The subcommittee will please be in order. We are continuing this morning with witnesses who are appearing in connection with the international health bill which is S. 41, and, of course, we have several House bills introduced along the same line.

Our first witness this morning will be Francis Boyer who is chairman of the board of Smith, Kline & French Laboratories. If you will come around, sir, you may proceed with your statement.

I might say that we have an executive session this morning on some pending bills before the full committee which is to begin at 11 o'clock, and I certainly want to hear everyone fully and I think we will have plenty of time. I would appreciate very much if the witnesses would bear that fact in mind.

STATEMENT OF FRANCIS BOYER, CHAIRMAN OF THE BOARD, SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Mr. BOYER. Mr. Roberts, gentlemen of the committee, I understand that I am first supposed to identify myself. I am chairman of the board of Smith, Kline & French Laboratories. I happen also to be president of the board of managers of the Wooster Institute of Anatomy and Biology in Philadelphia.

I am on my third term as a member of the visiting committee for the Harvard Medical School, and I am on the council of the National Institute of Arthritis and Metabolic Diseases here in Washington.

Mr. ROBERTS. I hope you will excuse me for calling you "Mister." I am sure you must be an M.D.

Mr. BOYER. I beg your pardon?

Mr. ROBERTS. I'm sorry I didn't identify you as an M.D.

Mr. BOYER. I'm not an M.D.

Mr. ROBERTS. Well, you ought to be.

Mr. BOYER. No, I'm very careful to know my place, Mr. Roberts.

I much appreciate the opportunity to testify before this committee in regard to the international health and medical research legislation you are now considering.

My firm, over a good many years, has emphasized the importance of carrying on medical research on an international scale, and I personally have been privileged to play a rather active part in this effort.

As early as 1942, Smith, Kline & French, Tulane University—the latter being one of our outstanding schools of tropical medicine—and the Mexican Government joined together in a project to set up at Boca Del Rio near Veracruz a new institute for the study of tropical diseases.

At the time, there was considerable apprehension lest our military forces serving in tropical countries bring home with them tropical infections which might easily become epidemic in an unprepared United States.

S. K. & F. underwrote the expenses of the American part of the arrangement, and since I spoke a reasonably fluent Spanish from my previous experience in Latin American countries, I became combination business agent and interpreter to a group of Tulane scientists in a mission to Mexico. The object was to select the site of the proposed institute and work out the arrangements for setting it up.

I shall not weary you with details, but finally, in spite of the warm collaboration of the Mexican scientists who worked with our mission, the institute was never built because of certain political factors and difficulties in regard to obtaining the necessary real estate. At first sight, then, this story would seem to be the account of a failure.

Actually, however, in the end the venture had a very constructive outcome. When the institute project finally fell through, Tulane University with our blessing, used the bulk of the funds which we had allocated for the institute to inaugurate fellowships which enabled a considerable number of Latin American students to study at the Tulane School of Tropical Medicine.

So I think the real point of the story is perhaps that a program for international cooperation in medical research must be carried out with realism and flexibility.

The next effort of S.K. & F. in international medical research was a highly successful one. In 1949, Dr. C. Wesler Scull, a distinguished biochemist and our director of development, and myself made a first preliminary exploratory trip to Europe, to investigate the possibility of establishing research collaboration with the great pharmaceutical houses of Great Britain and the Continent. (We at first contemplated establishing this collaboration with European academic centers, but except in Great Britain, largely abandoned this idea for reasons which I shall refer to later.)

Since that time, I have made a good number of similar trips and my firm has sent more than 40 separate missions to foreign countries including Japan and the Soviet Union, have visited 105 different pharmaceutical companies, and have brought home 250 promising compounds to our laboratories for further study.

Seven of these compounds have actually been introduced in the United States, including chlorpromazine, on which we collaborated with the great French house of Rhone Poulenc. Chlorpromazine, as you possibly know, was the first of the phenothiazine tranquilizers which have so significantly contributed to the recent revolution in psychiatric treatment.

In another area of international cooperation, S.K. & F., has set up throughout the world a chain of outposts cooperating in the study of "natural products." Among them are stations in Brazil, Australia, Singapore, and the Union of South Africa where botanists and chemists work together in collecting plant specimens, and with the collaboration of our Philadelphia and London laboratories, study their alkaloids for possible medicinal value.

Finally, in the last year, S.K. & F. has set up in London the Smith, Kline & French Research Institute to carry out research on an autonomous basis and under wholly British direction, the director of the institute being Dr. W. R. Bain, formerly professor of pharmacology at Leeds University. We have had for years an enormous admiration for British medical science. This is really the culmination of a good many years of thinking. We feel that British and American methods in medical research are mutually complementary and we are very sure that this international marriage will be a fruitful one.

Now, gentlemen, this bit of history is an example of what just one pharmaceutical company is doing in international medical research, and indicates our firm conviction in the internationalism of medical science and in the objectives of the present bill.

This history might also indicate that S.K. & F. should have at least learned something of the problems and pitfalls in the way of international collaboration.

May I briefly indicate a few points which occur to me?

As my friend Mr. Connor of Merck & Co. stated before the Senate committee, the activities proposed in the present bill involve three separate areas of the world, each representing a wholly different situation:

1. First is the support of medical research in the highly developed countries such as Great Britain, France, West Germany, and Japan.

2. Second is the fostering of the beginnings of medical research in the underdeveloped countries.

3. Finally there is the relationship of our country and our medical science with the Soviet Union and its satellites.

May I touch on these three areas in reverse order:

Last year S.K. & F. arranged an exchange of delegations with the Ministry of Health of the Soviet Union. I believe ours was the first delegation from a business concern to visit Russia since World War II at the request of the Soviet Government.

A team of our scientists were in Russia for about a month and visited some of the principal Soviet research institutes. Few, if any, restrictions were placed on their itinerary. They seemed to be quite flexible and they were received with the utmost hospitality.

In return a team of Soviet scientists visited the United States under our auspices for about the same length of time. Though I did not accompany our delegation to Russia, I was in very close touch with the visiting delegation during their stay here.

In the light of this experience, I again agree with Mr. Connor in sounding a note of caution. Though the scientific thinking of our delegation was undoubtedly stimulated by their contacts in Russia, I cannot point out thus far any tangible gain from the exchange of visits, and at times in the night when I ought to be sleeping, I find myself worrying whether in a small way S. K. & F. did not to some

extent trade away our own technology and know-how for very little return.

I am left more than ever convinced that in the future we must take every precaution that even scientific relationships with the Soviet be on a hardboiled, quid pro quo basis.

Next I turn to the problems posed in stimulating the medical research of the underdeveloped countries. Here I am in full accord with section 10 of the bill and I quote:

The activities authorized herein shall not extend to the support of public health, medical care or other programs of an operational nature as contrasted with research, research planning, and research training.

Beyond a doubt, American physicians abroad have performed and are performing notable service for this country not only in medicine but also as the highest type of ambassadors.

I hope that some of you gentlemen have seen S. K. & F.'s recent television program "M.D. International," which recently received the Peabody award for documentary programs, and in which it graphically portrays the contribution of the American doctor abroad toward international understanding.

But as set forth in section 10 which I have just quoted the present bill deals purely with medical research as opposed to medical service, and I am heartily in favor of this distinction.

The implementation of a research effort must be, I believe, kept administratively and otherwise, entirely separate from anything in the nature of a point 4 program, however worthy.

There is no doubt that by judicious selection in the awarding of contracts and grants, we can at comparatively small expense do much to foster research in the underdeveloped countries.

There well may be a brilliant young man in Thailand or Uganda who will make a notable contribution to the advance of medicine if he can only get his hands on an electron microscope.

Another brilliant young man can benefit his country and perhaps the world if he receives a grant toward his medical education in the United States.

But in the last analysis, it seems to me that the major field for the research support proposed by the bill lies in the industrialized, developed nations of Western Europe and also in Japan.

In the past these nations have made the major contributions to medical science, and there is no reason to foresee any flagging in their inventive fertility.

The more we can encourage contact between the scientists of these nations and our own people, the greater will be the benefit to the world.

Also, as Surgeon General Burney has pointed out, many major problems of disease and disability need study on a worldwide basis, and collaborative ventures among scientists of several nations constitute the most effective means of making progress.

But in this area I again echo Mr. Connor's recent testimony before the Senate, then, his warning that the funds of the American taxpayer should not be used to subsidize the product development of foreign commercial houses, but that grants or contracts under the bill should be confined to academic and other nonprofit centers and individuals.

There is one other point in connection with which I should like to emphasize. I have referred earlier in this testimony to the fact that in S.K. & F.'s original program of research collaboration with Europe we had thought in terms of establishing this cooperation with academic scientists in universities and research institutes. This has always been our program here in the United States, a program of the closest possible collaboration with academic centers.

But we soon found that on the continent of Europe this was not a practical procedure because many academic scientists already had long-standing working and financial relationships with the commercial houses of their own country.

Unless this situation is borne in mind it can easily happen that a grant under the bill to a Herr Professor becomes in fact a subsidy to a German company.

I am far from certain, moreover, that with the remarkable recovery of Western Europe it is necessary, or even sound diplomacy, for the United States to assume the whole financial burden of the proposed international cooperation in medical research. It would seem to me reasonable that the bill include some provision for the use of matching funds.

I was particularly struck to note the other day a statement that four times more foreign automobiles are now being sold in the United States than our own car exports.

This may appear to have little relevancy to medical research, but it made me wonder a bit whether it was wise for this country to continue to assume such a preponderant share of the cost of bettering the conditions of the world.

In the London Economist of June 27 there is a little table showing the pace of economic expansion in Europe, the United States and Canada between 1948 and 1958.

Next to the United Kingdom and Denmark, the United States and Norway are at the bottom of the list.

Moreover, I believe that the principle of matching funds might serve to lessen any tendency of foreign nations on the one hand to feel that they might as well get on board Uncle Sam's gravy train, or at the other extreme actually to resent what they might call American control of their research with a real or fancied dislocation of their academic salary structure.

The administrative handling of the bill is obviously of great importance. I have been recently privileged to become a member of one of the Councils of the National Institutes of Health, and I cannot sufficiently emphasize the ability and devotion of the eminent physicians who serve on this Council.

But I am under the impression that with the increasing appropriations for medical research, and the increasing load these men have had to bear, the mechanism for handling our research effort in foreign fields deserves the most careful possible consideration.

One good reason for the separate Institute proposed by the bill is perhaps to relieve the present institutes of part of their load. I well recognize the intensive consideration which is being given to the administration of the bill by Secretary Flemming, Surgeon General Burney, and their colleagues, but certainly if this were a business venture, and I can't help thinking of things in business terms, I

should proceed very slowly and on a small scale toward implementing the bill, and would work out the inevitable problems as they appear.

In part, this sentiment springs from my agreement with the President as to the fundamental necessity for a balanced budget, in part from some apprehensions as to our supply of medical manpower, but I say it all the more strongly because of my belief in the purposes of the proposed legislation.

These purposes should not be impaired by precipitate action, and I do not believe any body of men is wise enough to anticipate in advance the unavoidable snags.

Again let me express my appreciation for the privilege of testifying on this bill, with whose objectives I am in accord. I trust I have been able to give convincing evidence of this accord by the account of the activities of my own firm in international research.

Thank you very much.

Mr. ROBERTS. Thank you, Mr. Boyer. I think I speak for the subcommittee when I say that you have made a very fine statement and a very fine contribution. I was particularly pleased with your reference to the association of your company with Tulane University. The subcommittee visited Tulane some time ago, and we saw there some wonderful work that they are doing in tropical diseases. We found them working under very great handicaps, inadequate space, but at the same time doing a very fine job. I have known of Tulane University practically all my life.

I suppose they train more of the physicians in the area of the Southeast and Southwest than any other school in the world. It is a very fine school and they do a very fine job.

I was also pleased with your idea of matching grants. I think that undoubtedly if these other countries are going to benefit from things that we have made advancements in and have discovered and given the world, we of course expect to gain from them some knowledge in things that they have achieved. But I think certainly with the recovery of many of these countries, particularly in western Europe that there is certainly no need for this country to try to assume the entire burden financially of this project if it is approved by the Congress.

I certainly agree with you that any arrangement that we make with the Soviet Union certainly will have to be on the basis of hard trading so that we don't put ourselves in the position of giving away much of our technology without getting something in return.

I appreciate very much your appearance and thank you for a fine contribution to the work of our subcommittee.

Mr. BOYER. Mr. Chairman, might I just add one thing that happened to come to my desk after I had written out this testimony. It will just take a second. This is on the point of a possible actual resentment in foreign countries unless we enabled them to participate on this question of matching funds which you were kind enough to comment on.

This is from the London Times of July 18. The heading of it is: "American influence. Criticisms of 'excessive American influence in the world medical association' were reported by I. D. Grant, Chairman of the International Relations Committee." If the reports which have been made by two British doctors to the association were well

founded, he said, the association might even consider withdrawing their support and even devoting time and money in the future exclusively to stimulating Commonwealth medical activities."

In other words, I had written this question of resenting undue sort of a unilateral arrangement a little bit on speculation, and this happened to come to my desk and is in a way a confirmation that that attitude on the part of the foreigners is indeed possible.

Mr. ROBERTS. Gentlemen of the subcommittee?

Mr. BROCK. Just one question, Mr. Boyer. You mentioned chlorpromazine, a product of the French house. What is the practice when a foreign pharmaceutical house might work up a proven product? Is it then made available to commercial houses throughout the world, or must you get a certain right from that house in order to introduce that into the United States?

Mr. BOYER. The usual arrangement is that for the U.S. rights you may pay the foreign house a royalty. That is the case with chlorpromazine. We got that in a very embryonic stage and we worked on its development in very close collaboration. I mean when we obtained rights it was a very speculative drug, and there was a very little realization that it was anywhere nearly as effective as it turned out in the field of mental illness. And we took the gamble, agreed to pay them a royalty, and then worked the problem out very closely. I was practically commuting across the Atlantic at that time.

Mr. BROCK. Then must you also run tests on it in this country before you can offer it to the physician?

Mr. BOYER. Yes, indeed.

Mr. BROCK. In the mental field?

Mr. BOYER. Oh, yes. You have to, a little bit, regardless of what the French have found, you have to produce independent American clinical experience in order to satisfy the Food and Drug Administration. Does that answer your question, Mr. Brock?

Mr. BROCK. Yes. You also stated in your statement on page 6 in part in your statement "Another brilliant young man in this country and perhaps the world if he receives a grant for his medical education in the United States." Now do these young brilliant men in other countries have ready access to our medical colleges? My thinking is that we are running a closed cartel in our medical colleges. There are many brilliant young men in my State who cannot get into the medical colleges. They seem to want to hold down the enrollment so that they can control the number of doctors in the medical profession in the field.

Now in my particular county we have two doctors. We can use more, but they are not available, and I don't find in the budget request of our university medical college, a request for more funds so that they might expand the medical college and use more men. I am wondering if these foreign students can get into our American colleges with less effort than our own brilliant young men.

Mr. BOYER. To be perfectly frank Mr. Brock, you have got me there. I mean I know that our medical colleges are terribly crowded. It is awfully hard for people to get in them. Now supposing you have a brilliant young man in Uganda and at the moment he has not got the funds to come to the United States. I haven't crossed the bridge of how he would get into a medical college once he had the funds. You have got me there.

Mr. BROCK. That's all.

Mr. ROBERTS. Thank you very much, Mr. Boyer.

Our next witness is Dr. Ravdin from Pennsylvania.

The gentleman from Pennsylvania, Mr. Rhodes, I understand would like to introduce you to the committee.

Mr. RHODES. Thank you, Mr. Chairman.

Before Dr. Ravdin begins his testimony I would like to inform my colleagues on the committee that Dr. Ravdin is a very outstanding surgeon. He is associated with the University of Pennsylvania and is well known in our State. Dr. Ravdin had a distinguished career as a teacher. He is a former Surgeon General of the Army and has also served as brigadier general in the Medical Corps during World War II.

He won the Legion of Merit from the American Board of Surgery and we are mighty proud to have him as a witness today.

Mr. ROBERTS. Doctor, we are certainly happy to have you and I regret that our time is running a little bit short, and if you would prefer to file your statement and proceed informally you may proceed as you desire.

**STATEMENT OF DR. I. S. RAVDIN, VICE PRESIDENT IN CHARGE OF
MEDICAL AFFAIRS, UNIVERSITY OF PENNSYLVANIA, PHILA-
DELPHIA, PA.**

Dr. RAVDIN. Thank you very much. I am grateful to you for the opportunity to appear before you concerning matters concerning this bill. I should like to say that I am interested in this bill from its international approach to the problems of health and related research concerned with it. I am at present the first vice president of the International Federation of Surgical Colleges and Societies which organization was founded in Stockholm last July, and which will have its first official meeting in Munich in mid-September.

It is devoted to improving the standards of surgery throughout the world, and was organized first the Royal College of Surgeons of England, the Royal College of Surgeons of Scotland, the Royal College of Surgeons of Ireland, the Royal Australian College, the Canadian Royal College, the American College of Surgeons in this country, the Italian, French, Belgian, West German, Dutch, Danish, Swedish, and Norwegian Surgical Society.

At the next meeting in Munich it will take into its organization the first of the surgical societies behind the Iron Curtain, the Polish Surgical Society.

During World War II I served as the commanding general of the 20th General Hospital. We had the opportunity there of seeing a great many diseases which Americans had not previously seen, scrub typhus, filariasis, and a great deal of malaria. We were perhaps the most heavily infested area in the world with malaria and we saw all types of this disease. We saw in addition in the Chinese troops severe malnutrition as they are sent to us from China and it really required nutritional rehabilitation before these men could play their part in the two Chinese armies serving under Gen. Joseph Stilwell. We had the opportunity also of seeing that while our own American forces were well supplied with blood that became necessary when they were

severely sick or injured, the two Chinese armies were totally unprepared not only to provide blood but to have it.

And it was the result of our own activities with Gen. Sun Lee Gen that we were finally able to set up a Chinese blood bank for Chinese sick and injured. Our experience in the Korean adventure further emphasized the importance of blood, but I would like to call your attention to the fact that while now we have blood available in most of the civilized countries of the world where the level of medicine and surgery is high, there are numerous problems concerned with the administration of blood that still need intensive research.

In order to make blood perfectly safe, a tremendous amount of research is being done in this country, and in certain of the countries of Europe where the level of medical research is high, in order to make that procedure safer.

I should like to call your attention to the fact that the whole development of blood is a matter of cooperative research among countries, and that citrated blood, which is now used nearly universally, was first brought forth to help man by Dr. Richard Lewison, of New York, in August 1915, and by Diagoda Bonazares in the same month, both men not realizing that they were working in exactly the same field.

There are a great many areas in which international cooperation in research, rehabilitation, and medical care is important.

I have recently had the opportunity of going to Brussels, Belgium, to attend a conference of scientists who are concerned with cancer, a disease which costs more than 250,000 lives a year in this country and of countless thousands of others throughout the world. There were representatives at this conference from Belgium, Holland, Italy, France, Switzerland, and West Germany. These scientists are just as interested in cancer and in its problems as are the American scientists who are concerned with that disease, and if you will read Time this week, you can see Dr. John Rodney's picture on the front of it and what is being accomplished through the National Cancer Institute in this country. These scientists abroad are equipped by training and background to participate in the research effort which is going on in our own country to extend our knowledge of the causes of cancer and the possibilities of its cure.

They will need financial support if they are to give of their best efforts. They are dedicated men. I am convinced of this. Some of them can play an important part in the world now being done in this country by the cooperative groups of the cancer chemotherapy National Service Center. We need their help in order more rapidly to evaluate certain of the new chemical compounds that are constantly becoming available from industry, from universities, from research institutes, for the therapy of a variety of malignant diseases.

I am convinced that the impact of this problem as it is now conceived by those functioning under the leadership of the Cancer Chemotherapy National Service Center is of tremendous importance not only to us but to all those who are afflicted with this disease in our own country and in other countries and to the millions of people here and overseas who will become victims of this disease unless new knowledge is made available for the presentation and cure of it.

I might equally speak of cardiovascular disease, but I might tell you of a letter that I received yesterday from a young man who lives

in one of the southeast Asian countries whom we trained at the University of Pennsylvania following his graduation from Northwestern Medical School for 5 years in surgery.

He participated while he was with us in the care that restored many individuals with valvular disease of the heart to lead a useful life in the future, and yet in his own country that he has gone back to, not a single attempt has been made to perform this operation.

As you well know, in each of your States there are surgeons who are removing aneurisms, partial blowouts of the great blood vessels. This is a routine procedure every day now in the great hospitals of this country and still in the country that this young surgeon has gone back to because he was born and raised there, it has never been attempted.

We need to know more about the transplantation of organs, kidneys, lungs, perhaps some day the heart.

There are many immunological problems concerned with the transplantation of organs. But it is highly possible, gentlemen, that immunologists in Great Britain or other great countries in which scientists in Great Britain or other great countries in which scientists are may provide the answer to this very important area before our own scientists provide them, and it is therefore of the greatest importance that we have continually a flow of information backward and forward among medical scientists throughout the world. If one reads the New York Times this morning, you will see that Dr. Detley Bronk, the president of the National Academy of Sciences, has again signed an accord for an exchange of scientists between the Soviet countries and our own.

It has been said that perhaps within the matter of the budget this will not be possible, but I should really like to quote a statement of the president in this regards, and I quote:

By these and other means we shall continue and expand our campaign against afflictions that now bring needless suffering and death to so many of the world's people. We wish to be part of a great shared effort toward the triumph of health.

If we are to reach this objective we must strengthen basic research not only in this country but in many other countries. We must strengthen research and research training in those areas which will contribute to a better understanding of the abnormalities from normal function that is imposed by a wide variety of disorders. We must concern ourselves with the rehabilitation of those who through more adequate therapy can play a useful role in society. And I shall say no more about this because no one could have portrayed this more eloquently than did Harvey Rusk yesterday before this committee.

When competent research is being done under wise leadership, we should strengthen it if it can be done. It is to our benefit as much as it is to the benefit of other nations. If research manpower is inadequate, we should provide the funds to improve it. While this will in certain instances require the training of men and women in this country, I am sure that you realize that in numerous countries, where freedom is treasured as much as it is in our own country, splendid research is being done.

Mr. Brock, I should like to call your attention to the fact that in the graduate school of the University of Pennsylvania we are bring-

ing each year several hundred graduates of medical schools throughout the world to give them additional training in basic medicine, the basic medical sciences, and in certain of the specialties so that they may go back to their own countries better equipped to fulfill the mission which is theirs in medicine.

I would agree with you that the basic training of these men abroad very frequently is not within the same standards that we have set up in this country, and we must find some mechanism of elevating the basic science training of these individuals for the foundation upon which sound medical training is based are the basic medical sciences which form the cornerstone of medical training.

I know that our time is limited and I think I have stayed within it, but I should like to read just one part of my statement.

This Nation has long realized that a lack of concern for the problems of health of people leads all too frequently to poverty, to diseases which sap the physical and mental vigor of people, and finally to revolt. We would have gained so much from the research of our own scientists in medicine and the related sciences and from those countries where good research in the medical sciences being done, must I believe realize that the more quickly we can assist those less fortunate to begin to achieve what we so fortunately have had in increasing abundance, the more quickly I am convinced that universal understanding can be won in a troubled world. As a doctor and as a surgeon I am convinced that we can achieve more through universal, more in the way of universal understanding through medicine and the sciences related to it than we can achieve by any other way.

If any of you were in Korea during our recent adventure, you would have found as you went across from the east to the west or vice versa nationals from 16 nations in our lines.

This is merely a small picture of what we may meet in the future, and while many of these men were brave soldiers, their medical support was frequently of the worst.

Our children in another war may well be taken care of by their inadequately trained physicians and surgeons. We will not then achieve a record of medical and surgical excellence which we did in the Korean adventure and in World War II and which has never previously been achieved in the history of the world.

Thank you very much.

Mr. ROBERTS. Thank you, Doctor. We are very grateful to you for giving us some of your valuable time.

Dr. Rusk yesterday told of a number of drugs and various other achievements or attainments that we had profited by as a result of the work of doctors and scientists in other nations in the world. I wonder if you have some examples of some of the things that we have already profited from in that respect?

Dr. RAVDIN. Dr. Rusk undoubtedly told you—I was not here when he testified—he has undoubtedly told you what is going on in his own institute for rehabilitation in New York, in which he brings individuals from other countries.

I happened to be president of the Ventner Foundation, an organization which has dedicated itself to bring graduates from Germany and Austria and medical schools to this country for internship and, if they pass the examination of the educational council for foreign medi-

cal graduates, to receive residency training in this country. These two groups, Dr. Rusk's group and the group from the Ventner Foundation, of which Dr. Hilton Reed is the director, get together once a year under a program instituted by the Ventner Foundation and which is entitled "The Dynamics of Democracy." I wish some of you could come and sit for 2½ days when these foreigners are brought to Atlantic City, housed, fed, and have distinguished Americans talk to them about the democratic processes in a perfectly frank manner.

Congressman Fogarty spoke to them about the two-party system last February at their meeting. This is the way to achieve understanding, to improve their medical knowledge. We learn something from it and we all have a broader perspective in this field.

It seems to me that in many areas in this country and in an international approach we have got to do this in an area in which you are greatly interested, the safety problem. We have had three organizations functioning on their own, the National Safety Council, the Committee on Trauma of the American College of Surgeons, the American Association for the Surgery of Trauma; and now when I leave you gentlemen I am going to see the first of the white papers that have been gotten together by the staffs of these three organizations to bring all of them together to bring their great influence and knowledge to a common problem. Now we can do this within our own country. We can in a certain measure achieve this type of unity of understanding with other countries that need help.

Mr. ROBERTS. I would like to say that the members of the subcommittee appreciate very much the wonderful interest that you have taken in this matter of safety, in the work of the AMA, the American College of Surgeons, and the National Safety Council.

You have certainly been a wonderful help to us. I would like to just ask one more question, and that is, Do you know of any fields where some of the foreign countries may be superior in some of their techniques and progress that they have made in various fields of medicine?

Dr. RADVIN. In the preservation of blood over long periods of time our British colleagues have been ahead of us. Now I have sent certain of my own young men who were doing research in this field to England to work with Professor Mollinson. You remember the British started some work a few years ago in the freezing of spermatazoa and the artificial semination of cattle. That work related very closely to the preservation of red cells of the blood. Dr. Slovenner went over to work with Dr. Mollinson in the group in England, and it was not long before they found that with the use of a little glycerine in the blood the cells could be preserved for considerable periods of time in the frozen state, regenerated, and then used, and we have in our own hospital now frozen these cells under this method for as long as 15 months, regenerated, introduced them safely into patients. Great research is rarely the result of a single man's effort.

It is usually a cooperative effort. As one goes into the great research that is being done and has been done, one finds that great achievements come in the working together either physically or intellectually in different areas of men capable of fine research.

(Dr. Radvin's prepared statement follows:)

STATEMENT OF DR. I. S. RADVIN

Congressman Roberts and members of the committee, I am grateful to you for the opportunity to appear before you and your committee to discuss Senate Joint Resolution No. 41, which bill has been called the international health bill or the health for peace bill. This bill seeks to establish in the Department of Health, Education, and Welfare the National Advisory Council for International Medical Research, and to establish in the Public Health Service, the National Institute for International Medical Research.

I am the John Rhea Barton Professor Surgery in the School of Medicine of the University of Pennsylvania, and the vice president of medical development of that university. I am chairman of the board of regents of the American College of Surgeons, and first vice president of the International Federation of Surgical Colleges and Societies, an organization dedicated to raising the standards of surgery throughout the world. I am a member of the National Advisory Health Council, and have recently been president of the International Blood Transfusion Society, and the American Surgical Association.

During World War II, I served in the China-India-Burma theater of operations, and was commanding general of the 20th General Hospital. This hospital took care of the American, Chinese, and British troops. It was an affiliated unit from the University of Pennsylvania School of Medicine. My associates and I had the opportunity during the years that we were in the Far East of seeing diseases that we had previously not seen, such as scrub typhus, and filariasis. We were in an area in which malaria was more prevalent than nearly any other part of the world. We saw all types of this disease. We had the opportunity of observing severe malnutrition in all of its forms.

The two Chinese armies serving under Gen. Joseph Stilwell in Burma were provided with totally inadequate medical support; no provision had been made for the procurement of blood for the use of Chinese soldiers who were seriously ill or severely injured. The medical support which the Chinese had included was poor and they had less than minimal laboratory and public health personnel. We had the opportunity of seeing the marked improvement in physical stamina of many of these individuals when they were fed an adequate diet to correct for nutritional deficiencies.

In World War II, thousands of sick and injured who participated in our armed effort recovered and are leading useful lives because adequate amounts of blood were constantly available for these individuals when they needed it, and the Korean adventure further stressed the importance of an adequate supply of blood. Wherever a high level of medicine and surgery exists in the world, ample amounts of blood are now available. The administration of blood, however, carriers with it certain hazards, and as the usefulness of this material has increased, we have found more and more areas wherein intensive research is required in order to make the simple procedure of blood transfusion simpler and safer. The research workers who are interested in this area of effort are found not only in this country, but in numerous other countries overseas, and while a great deal has been accomplished, a great deal still remains to be done. It can only be done by the research of skilled investigators.

There are, as you know, many areas in the world where the level of medicine and surgery is not high. We in this country who have benefited so much from superior medical service should be playing an important part in improving the standards of medicine and surgery throughout the world. The newly founded International Federation of Surgical Colleges and Societies has as one of its major purposes, the improvement of surgical standards in those areas in which it is now substandard. The American College of Surgeons, the Royal College of Surgeons of England, the Royal College of Surgeons of Scotland, the Royal College of Surgeons of Ireland, the Norwegian Surgical Society, the Swedish Surgical Society, the Danish Surgical Society, the Dutch, Belgian and French Societies, as well as the Italian Surgical Society, and numerous others, have banded together to form the International Federation of Surgical Societies and Colleges. These organizations will provide surgical competence in the form of teams of surgeons who will go to those areas where the teaching and training of surgery and its specialties are inadequate. To do this will require financial support if we are to achieve our objectives.

There are still innumerable diseases which cause a high toll in suffering and of life here and overseas, such as cardiovascular diseases, cancer, and many others. In our own country, and in certain of the countries where the level of medicine and surgery and research is high, dedicated individuals are working in an attempt to solve the health problems which each year have taken a heavy toll of life, or produced increasing disability. Poverty and illness breed discontent. We shall never have peace in the world until those who have inadequate medical and surgical attention receive it. They cannot receive it as long as their own people are not adequately trained to provide what is now considered to be adequate medical and surgical care.

It is my considered opinion that a National Institute for International Medical Research would do a great deal toward achieving this goal. To the extent that such an institute receives adequate support from our Government, research workers, technologists, medical and surgical scientists, and others from our country and other countries can bring their special efforts to help all those who need it. Innumerable research workers, adequately trained in countries where the level of medical science is excellent, will further dedicate themselves to the end that those who now do not receive adequate care, will receive it. This will create the circumstances for a better international understanding than can be achieved by any other means now available to us.

I have recently had the opportunity of going to Brussels, Belgium, to attend a conference of scientists who are concerned with cancer, a disease which costs more than 250,000 lives a year in this country, and of countless thousands of others throughout the world. There were representatives from Belgium, Holland, Italy, France, Switzerland and West Germany. These scientists are just as interested in cancer and its problems as are the American scientists who are concerned with this disease. They are equipped by training and background to participate in the research effort which is going on in this country to extend our knowledge of the causes of cancer and the possibilities of its cure. They will need financial support if they are to give of their best effort. They are dedicated men. Some of them can play an important part in the work now being done in this country by the cooperative groups of the Cancer Chemotherapy National Service Center. We need their help in order more rapidly to evaluate certain of the new chemical compounds that are constantly becoming available for the therapy of a variety of malignant diseases.

I am convinced that the impact of this program as it is now conceived by those functioning under the leadership of the Cancer Chemotherapy National Service Center is of tremendous importance not only to us but to those who are afflicted with this disease in other countries and to the millions of people here and overseas who will become victims of the disease unless new knowledge is made available for the prevention and cure of it.

Cardiovascular disease is the chief cause of death in this country at the present time. It ranks high among the causes of death in other countries of the world. Many of our best scientists are concerned with the problems of cardiovascular disease, and there are many scientists overseas who are concerning themselves with its problems also. Certain of these disorders are amenable to surgery, such as the valvular diseases of the heart which are caused by streptococcal infections. I have just received a letter from a young man who spent 5 years in surgical training with us. He participated in the case that restored many individuals with valvular disease to lead a useful life in the future, and yet, in his own country, not a single instance of the surgical approach to this very important problem has taken place. Aneurysms of the major blood vessels can, in the majority of instances, be excised, and continuity be established either with a vascular graft or with a tube made from miracle fibers. This is being done every day in many of our great surgical clinics, and yet there are innumerable countries throughout the world where this has never been attempted. The transplantation of certain of the major organs will be achieved when, as the result of research, we know more of the immunological problems concerned with tissue transplantation. This knowledge, too, will only come from intensive research. It is highly possible that immunologists in other countries, adequately supported, will provide an answer in this very important area before our own scientists will provide it.

"The layman is apt to think of a scientist as one who possesses, in addition to wide technical knowledge, some magic gift for discovering truth. Every scientist will hasten to reply that he has no such magic gift, that indeed there is

no magic touchstone of any kind for the discovery of truth. Science discovers truth the hard way; entertaining no a priori certitudes she starts from absolute ignorance and, by tested and critical procedures, little by little wrests from Nature successive fragments of information which prove to be verifiable by competent observers at all times and in all places."

In his state of the Union message, the President stressed the importance of intensified effort in the health field. I would hope that such an effort will be supported by everyone interested in a better world for the future.

The President did in fact state: "By these and other means we shall continue and expand our campaign against afflictions that now bring needless suffering and death to so many of the world's people. We wish to be part of a great shared effort toward the triumph of health."

If we are to reach this objective, we must strengthen basic research not only in this country, but in many other countries. We must strengthen research and research training in those areas which will contribute to a better understanding of the abnormalities from normal function imposed by a wide variety of disorders.

We must concern ourselves with the rehabilitation of those who through more adequate therapy can play a useful role in society. We must extend our responsibilities, and concern ourselves not only with the problems which are of importance to our own people, but those which prevent many other people from participating fully in the benefits which we have come to know can be expected from carefully planned and skillfully executed research.

Where competent research is being done under wise leadership, we should strengthen it if this can be done. If research manpower is inadequate, we should provide the funds to improve it. While this will, in certain instances, require the training of men and women in this country, I am sure that you realize that in numerous countries, where freedom is treasured as much as it is in our own country, splendid research is being done. In them, if funds are needed to prime the pump, we should provide them. If American research workers and rehabilitation experts are needed to demonstrate what can be accomplished when an adequate overall program is instituted, we should be prepared to send them where they are needed.

I need not, I am sure, point out to you and your associates that there are numerous international scientific organizations attempting to participating in small segments of what this bill envisages. Encourage those that are now operating in various geographic areas and in a variety of fields of effort. The goal will be achieved more rapidly by a full-scale effort than by a restricted approach to the problem.

This Nation has long realized that a lack of concern for the problems of the health of people leads all too frequently to poverty, to diseases which sap the physical and mental vigor of people, and finally to revolt. We who have gained so much from the research of our own scientists and those from countries where good research is being done, must realize that the more quickly we can assist those less fortunate to begin to achieve what we so fortunately have, the more quickly universal understanding will be won in our troubled world.

Mr. ROBERTS. Thank you, Doctor.

Gentlemen of the subcommittee, any questions?

Mr. BROCK. Just one question. I want to compliment Dr. Ravdin on his statement and further on the capabilities of bringing in these graduates from foreign countries for graduate work. I want to commend you.

Mr. O'BRIEN. Mr. Chairman, may I ask one question.

Doctor, you mentioned some of the very fine things that are being done now, that these were being helped by grants from various institutions and with private money. Do you think there might be a tendency if we enact legislation such as we have before us to dry up some of those voluntary efforts and a tendency to say "Well, the Government is in it. Let the Government take over what we have been doing"?

Dr. RAVDIN. No, I do not. I think the single question that one must ask himself constantly is a relatively simple one. Can the funds be spent wisely, and if you can answer that you believe the funds can

be spent wisely, there is room for tremendous effort. It is my considered opinion that Smith, Kline & French will never give up the generosity of their program to the scientific medical institutions of this country. They have been pioneers in providing funds where they have been needed, and they have had the wisdom to provide these funds for good solid research workers. They will never give that up.

Mr. O'BRIEN. You think they will continue to do that even if the Government enters this field?

Dr. RAVDIN. I have nothing to do with Smith, Kline & French, but I know of a great many people in that company and in related companies in that industry and they will never do it, sir.

Mr. O'BRIEN. Thank you.

Mr. ROBERTS. The gentleman from Ohio?

Mr. SCHENCK. I have no questions except to thank the gentleman for his very fine statement.

Mr. ROBERTS. Thank you, Doctor.

The subcommittee will stand in recess until 10 a.m. tomorrow morning when we will meet in the same committee room.

(Whereupon, at 11:05 a.m. the hearing was recessed, to reconvene at 10 a.m. Thursday, July 23, 1959.)

INTERNATIONAL HEALTH

THURSDAY, JULY 23, 1959

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SAFETY OF THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to recess, in room 1334, New House Office Building, Hon. Kenneth A. Roberts (chairman of the subcommittee) presiding.

Present: Representatives Roberts (presiding), Rogers of Florida, Brock, Schenck, Devine, and Rhodes of Pennsylvania.

Mr. ROBERTS. The subcommittee will please be in order.

This morning we will continue the hearings on Senate Joint Resolution 41 and various other House resolutions in connection with the matter of establishing a National Institute for International Medical Research.

Our first witness this morning is Dr. Justin M. Barber, North American Health Research Association.

Dr. Barber, you may proceed.

STATEMENT OF DR. JUSTIN M. BARBER, NORTH AMERICAN HEALTH RESEARCH ASSOCIATION

Dr. BARBER. Mr. Chairman, you have two other witnesses listed to testify today, Dr. Napolitano from New York and State Senator Mullens from Massachusetts.

Mr. ROBERTS. Let me have the first name again, Doctor.

Dr. BARBER. Ernest Napolitano. Dr. Napolitano has found it impossible to be here today, but he has sent his testimony in writing.

Mr. ROBERTS. Would you like to submit that for the record?

Dr. BARBER. I would like to submit it for the record.

Mr. ROBERTS. Without objection it will be received for the record.
(The prepared statement of Ernest G. Napolitano, D.C., Ph. C., is as follows:)

STATEMENT SUBMITTED BY ERNEST G. NAPOLITANO, D.C., PH. C.

Honorable Chairman, the rapid pace of scientific and technological advance of our century made man realize that future welfare, or even survival, of the human race depended on ever-increasing scientific progress. We have come to appreciate that human society can no longer depend for its scientific advancement on incidental discoveries, made by the few, who often forego material advantage in favor of satisfying their intellectual curiosity. It is this curiosity which drives people to explore the unknown.

Most of the outstanding investigators of the past years were practitioners or teachers who did research in addition to the work which gave them their livelihood. Research was more or less their avocation. The support of these in-

vestigations came from meager budgets of schools or colleges and at times from the private purse of the investigator. As soon as the public and Government became aware of the crucial significance of research in our modern technological society, some important changes took place. More public funds have begun to be provided for the support and advancement of scientific inquiry; research had to become the main preoccupation of numbers of people, latent talent was to be actively sought and developed in order to swell the cadres of those rare individuals who are capable of asserting themselves even under adverse circumstances; research had to become a livelihood in order to attract the people inclined to do such work. This required organized efforts. As the size of public research funds increased, research institutes with full-time staff, and eventually national research organizations came into being.

Your committee again has expressed a desire to add to the astronomical need for research funds in the form of this proposed medical research legislation. The passing of this measure by your esteemed colleagues will expand the health research programs in many fields. The chiropractic profession desires to participate in this program of expansion. I feel most honored to submit the following information and facts for your edification:

1. The modern practitioner of chiropractic applies a work that is scientifically sound, neurologically and physiologically.

2. He is trained in accredited chiropractic schools and colleges by specially skilled instructors. He is required to pass qualifying examinations in all basic science subjects, such as anatomy, embryology, chemistry, nutrition, physiology, bacteriology, pathology. His training in the clinical sciences includes diagnosis, obstetrics, gynecology, dermatology, pediatrics, mental hygiene, chiropractic palpation, techniques of adjusting the vertebral column, chiropractic orthopedics, spinal analysis, principles of chiropractic practice, spinography (a special procedure of X-ray, allowing the chiropractor to have a specific analysis of the spine prior to his application upon the patient), instrumentation (analytical instruments used to determine the effect of structure upon function as it relates to the nerve system).

3. The modern chiropractor is required to study for a period covering 4 years of 9 months each, complete a minimum of 4,000 hours of resident study, and satisfactorily complete examinations in all areas of work included in the curriculum. He is then granted the degree "doctor of chiropractic."

4. Chiropractors are required to take basic science boards that all members of the healing professions are expected to pass before entering into practice, following which the chiropractor must successfully negotiate examinations given by a board of chiropractic examiners in their respective States.

The qualifications of the doctor of chiropractic have well been established through the years. The practitioners in this healing profession have long sought the answers to many problems besetting suffering humanity. Their research in the field of body mechanics has unquestionably thrown the spotlight upon the skeletal system and its effect to a person's health. They have established and have factual data to support the principles that a misaligned spine is as much of a deformity as is a fractured arm or leg. Yet, generally speaking, one is more obvious than the other to most physicians. It is, however, because of lack of knowledge and sometimes difficult to recognize that a displaced vertebra or pelvis is overlooked, thereby causing continued irritation to the nervous system and producing many types of malfunctions causing simple disease processes to become complicated and ultimately chronic problems.

Chiropractors have been specially trained in the area of body mechanics and feel that further research along these lines will come up with answers to hitherto unsurmountable health problems. I respectfully feel that if the following areas could be researched that mankind would benefit immeasurably from the end results of knowledge gained:

1. Effects of structure upon function.
2. Effects of function upon structure.
3. Effects of motion upon function.
4. Effects of spinal deformities upon the nervous system.
5. The research of analytical instruments to determine neurological involvements due to vertebral or disk displacement.
6. Techniques of correcting structural problems, particularly as they pertain to the vertebral column.
7. Postural correction methods and techniques.

These are but a few areas of research that chiropractors are prepared and qualified by prior right to pursue. I have here, gentlemen, attempted to briefly cover educational requirements of the chiropractor, his field of interest and what his hopes are for the continuance of research. Many millions of people have benefited by this health science and we sincerely hope that you gentlemen recognize our desire to continue to assist mankind through constructive research programs.

May I thank you for the privilege of having me appear before this committee.

Dr. BARBER. Senator Mullens of Massachusetts, who was to handle the proposed amendment to Senate Joint Resolution 41 died night before last——

Mr. ROBERTS. I am sorry.

Dr. BARBER. And therefore he could not be here to submit the amendment, and with your permission I will include the amendment of Senator Mullens with my testimony.

I am Justin M. Barber, vice president, North American Health Research Association, Norwich, Conn. I received my degree in chiropractic from the Palmer School of Chiropractic, Davenport, Iowa, in 1922, graduating with a degree of doctor of chiropractic. I have also received by degree as philosopher of chiropractic.

I wholeheartedly agree with the spirit of Senator Hill's bill. The idea is a "must." Too many of the Nation's able men are being stricken in their most productive years.

Senator Hill's bill provides for research on only one approach, medicine. There are no provisions made to include the drugless professions. The drugless professions are now adding greatly to the Nation's health. They should be researched and evaluated. Chiropractic is the largest drugless healing art. It has brought health to millions of people after other methods have failed. The colleges of chiropractic have always been self-supporting. They have never received Federal or State grants. To date, all the research has been carried on from private funds from within the profession. Now that the principle of chiropractic has been thoroughly established, we want to research the principles and the application. To do this, we must have Federal funds. The North American Health Research Association is a duly incorporated organization, incorporated under the laws of the State of Connecticut, organized for the purpose of raising funds to research chiropractic and to coordinate the research now being done in this country and in Europe.

The organization is composed of professional and businessmen. Its objects are to use the present research facilities now available in chiropractic schools and colleges to procure qualified research men and where necessary, procure necessary equipment for chiropractic research.

At the present time, Federal funds are being used to support many medical projects. This bill alone calls for \$50 million for medical research. The chiropractic profession is the largest drugless healing profession, and we feel that the comparatively small amount of \$500,000 is not excessive in comparison. In fact, it will only be the nuclear for our research.

When the research of chiropractic is in full swing, it is estimated that \$3 million annually will be necessary. We do not expect this additional money from the Federal Government. We expect to raise it from private sources.

The amendment that we would like to add for your consideration: In section 2 of Senate Joint Resolution 41, we would like to add:

And provided further, That this resolution shall include the research of the art and science of chiropractic and physical medicine. Chiropractic shall be defined as the science of locating, and removing by hand adjustment only, interference with the transmission or expression of nerve force in the human body, by the correction of misalignment of subluxations of the vertebral column. It excludes operative surgery, prescription or use of drugs or medicine, or the practice of obstetrics, except that the X-ray and analytical instruments may be used solely for the purposes of examinations; chiropractor shall be defined as a person who lawfully practices chiropractic.

Section 8, new section added:

There is hereby further authorized to be appropriated to the North American Health Research Association, Incorporated, a corporation duly organized under the laws of the State of Connecticut, the sum of \$500,000 annually, to carry on the research of the art and science of chiropractic and physical medicine. Said association is hereby designated to supervise and research utilizing all existing established centers of research in chiropractic schools, colleges, and private institutions.

Mr. ROBERTS. Thank you very much for your statement.

Any questions?

Mr. ROBERTS. I see Dr. De Bakey, who is the chairman of the department of surgery, Baylor University, Houston, Tex. I understand he has a plane schedule problem, and would like to testify now.

We would be glad to have you, Dr. De Bakey.

STATEMENT OF DR. MICHAEL E. DE BAKEY, CHAIRMAN, DEPARTMENT OF SURGERY, BAYLOR UNIVERSITY, HOUSTON, TEX.

Dr. DE BAKEY. Mr. Roberts, thank you very much for this opportunity to testify.

I have a formal statement, which I have sent to the staff, and which I would like to include, with your permission, in my testimony. I would like to supplement this statement with some extemporaneous remarks, if I may, sir.

Mr. ROBERTS. Surely. Your formal statement will be included in the record.

(The prepared statement of Dr. Michael E. De Bakey is as follows:)

STATEMENT BY MICHAEL E. DE BAKEY, M.D., CHAIRMAN, DEPARTMENT OF SURGERY, BAYLOR UNIVERSITY COLLEGE OF MEDICINE, HOUSTON, TEX.

My name is Michael E. De Bakey. I am professor of surgery and chairman of the Department of Surgery at Baylor University College of Medicine, Houston, Tex. As a teacher of surgery and a practicing surgeon, with a longstanding interest in research and investigation, and through my association with a number of advisory groups to national agencies, I am somewhat familiar with a number of research and educational programs under the auspices of the Federal Government. In addition, I had an opportunity to spend a year of my training abroad under the pioneering leadership of one of the foremost vascular surgeons, Prof. René Leriche of Strasbourg, and I thus have some familiarity with such work outside of our own country. On this basis I should like to express by enthusiastic and strong support of the international medical research bill.

Most important among my reasons for support of this bill is the firm conviction that it will provide one of the most effective means of advancing and acquiring medical scientific knowledge in furthering the health of our own people as well as that of others. There is no doubt in my mind that even from a purely economic standpoint our money will be well spent that is spent for improvement

of the health of all peoples. This may be exemplified in many ways. Indeed, medical history is replete with such examples, and a number of distinguished scientists have presented illustrations of how important medical discoveries which have emerged from scientific laboratories of many countries throughout the world have produced significant improvement to the health of our people.

I should like to cite still another example of how such research efforts in other parts of the world may have great potential value to our own people. This is concerned with an area of endeavor in which I have a primary interest, that is, cardiovascular diseases. The importance of research in this field of endeavor is well recognized since heart disease constitutes by far the most frequent cause of death and disability in this country. Indeed, it accounts for more deaths than all other diseases combined, and the underlying factor responsible for these deaths is arteriosclerosis. Despite increasingly intensive research efforts there remains much lack of knowledge concerning the pathogenesis and fundamental biochemical and metabolic factors contributing to its development. There has been urgent need for more precise and effective research methods for the investigation of these various factors. During the past year there has been developed a method termed gas-phase chromatography, which along with the use of radioisotopes would appear to meet this urgent need. There are reasons to believe that this research methodology may provide one of the most important developments in elucidating the underlying factors contributing to arteriosclerosis and thus in providing more effective means of controlling heart disease. This would be of incalculable benefit to our American people, yet the basic research leading to this development was carried out in a scientific laboratory in London.

The benefit to our Nation of the work made possible by an international medical research bill would be incomparably greater than the significance of the funds expended. Such an extensive project as this would, in addition, provide incalculable opportunities for study of trends and patterns and for coordinating work already done with that which we are performing now, both clinically and in our laboratories. As I have already mentioned, this concept is particularly applicable to research in cardiovascular disease. For instance, the fact that Ceylon has a mortality rate from heart disease of about 68 per 100,000 population compared with 460 per 100,000 in the United States may serve to shed light upon the etiology of heart disease and eventually lead to its prevention. Similar statistics occur with relation to cancer, arthritis, mental illness, tuberculosis, and nutritional diseases. Although some diseases, such as leprosy, are not of great consequence in the United States, experience has demonstrated that research efforts to conquer one disease frequently result in discoveries that are of direct importance in the control and treatment of other diseases. Cancer and heart disease are but two dramatic examples of the type of disease that might be eradicated completely within a few years if there were an opportunity to study the results of therapy on large numbers of patients in various environments.

There are many other examples that may be cited to illustrate the value to our people of funds expended in support of medical research efforts that cross our borders. But I should like now to emphasize still another important reason for my support of this proposed legislation. This is concerned with my strong belief that international cooperation along the line of medical scientific research can be a potent and far-reaching influence for world peace as well as for improvement of health. I have traveled extensively, not only in Europe and the Americas but also in Asia and in countries behind the Iron Curtain, and I have found in every country I have visited a distinct bond between their scientific community and ours. There exists a warmth and a friendly intellectual curiosity that transcends political differences and that allows for true communication between people of different nationalities and cultures. The expenditure of these funds for international medical research will not only help enhance the friendly relationship between countries but through the opportunities provided by this type of legislation in association with our research there will be an increase in investigative activities, a means for providing better coordination of these activities, and a better utilization of facilities and information already available. In the final analysis, therefore, there will accrue tremendous benefits to our own people.

The principle underlying this legislation is both idealistic and practical, a combination irresistible to most thinking Americans. Even more important, however, is the humanitarian aspect of this type of program. The concept of

assistance to the underprivileged, even without a direct gain for ourselves, is a deeply cherished American tradition. From the point of view of a taxpayer, of a person interested both personally and professionally in seeing improvement of health standards, and of one who wishes to serve a humanitarian purpose, I strongly urge the adoption of this bill.

Dr. DE BAKEY. There are two basic reasons that I am strongly in support of this proposed legislation. The first is concerned predominantly with the fact that I believe that research which permits extension of our investigative studies across our borders is of primary interest to our American people, and that money that would be spent in the extension of research along the lines indicated in this bill would be primarily of benefit to ourselves, to our own people.

Now, this has been well exemplified by medical history, and I want to detail these examples. However, because I am particularly interested in the research aspects of cardiovascular disease, I think there is one very good illustration that has just recently developed to indicate the importance of international medical research for our own concern.

Arteriosclerosis is probably one of the most common disorders relating to heart and blood vessel disturbances. And despite the very intensive research efforts that are being carried out to try to understand better the cause of arteriosclerosis, we have yet to learn the pathogenesis or the manner by which it is formed, and this is due largely to, you might say, restrictions in our methods of research, in our approach to the problem, and in our tools for research in this field.

Within the past year there has developed a method for research which is termed "gas phase chromatography." I shall not go into the details of this, but will only indicate to you that it has created a great deal of excitement and interest because it provides a very effective means of precisely determining quantitatively and qualitatively the nature of the various factors, particularly the cholesterol factors, that contribute to the development of arteriosclerosis. This method has been developed by a research worker in London. Yet, it may provide a real breakthrough in our investigative studies in arteriosclerosis.

Now, the support of this kind of activity is, I think, well exemplified by the nature of this international medical research bill. We believe that this method may advance our knowledge in arteriosclerosis in a way that has never been possible before.

I cannot think of anything more effective in improving the health of the American people than the advance in knowledge of arteriosclerosis since it constitutes, as a cause of disability and death, the most important cause, by far exceeding all other causes, and indeed it exceeds the cause of death for all other diseases combined in this country. The American people are obviously more subject, according to our statistical evidence, to diseases of arteriosclerosis than perhaps other peoples in the world.

This merely exemplifies the importance of research carried out across our borders to our own people.

Of course, the activities in our own area of research in this country may also be used to improve the health of other people, which ultimately is of benefit to all peoples of all the world.

The second reason that I regard as important in supporting this proposed legislation is concerned with its value as a means of providing better relations among people. Medical science and medical research transcends all political differences, and within the medical

communities of the different peoples of the world I have found a common bond of understanding of warmth in our relationships, and of a desire to carry out the objectives of medical science.

I have traveled fairly widely, have visited most of the civilized countries of the world, with the exception, perhaps, of China and India, and in all countries where I have visited with the medical people of those countries, I have found this very friendly and warm relationship and a desire to exchange information, to learn from each other; and I think that this constitutes a real means of effecting better relations and, I think, a means of our approach to world peace.

For these reasons, I am strongly in support of this bill and would urge its adoption.

Mr. ROBERTS. Thank you very much, Doctor.

In your particular field, what are some of the contributions that have been made, to your knowledge, by developments in other countries of the world?

Dr. DE BAKEY. Other than the one that I referred to a moment ago, which I think is really one of the very important developments in this field, there have been a number of other developments, particularly, you might say, in the research field, because this constitutes in a way the most important contribution to our knowledge. That is, knowledge in research, for example, in basic physiology, basic biochemistry, in Sweden, in Norway, in Denmark, in England, in France, there have been over the past years many developments that have contributed to advancing our knowledge in cardiovascular diseases. Specifically in cardiovascular surgery, which is the area with which I am primarily concerned, there have been contributions made to a number of areas. Sir Russell Brock, for example, in London, has contributed to the advancement of certain developments in surgery of the heart. A man by the name of Melrose has made a significant contribution in the field of so-called open heart surgery, this new development in surgery of the heart, in which the heart is actually opened and visualized, and the surgeon is able to work within the heart. And his contribution consisted primarily in our better understanding of how to stop the heart and start the heart during an operation, for example. This contribution came from a man by the name of Melrose, who is a medical scientist working in London.

In France, there were two surgeons, one by the name of Udeau and another by the name of DuBose, who made significant contributions in advancing our knowledge of the transplantations of blood vessels. In fact, Udeau transplanted the first successful case. This was in 1950.

These contributions have come from different sources as individual contributions which have added to our sum total of knowledge and which have advanced the field.

Going back even further, the man that I worked with for a year at the University of Strasbourg was a man by the name of Rene Leriche, who made many pioneering contributions to cardiovascular surgery, from which we have learned a great deal, and which has led to developments in this country that have improved the health of our people considerably.

Mr. ROBERTS. Having been one of Ross Neal's patients at one time—I had an artery severed, one of the more unfortunate things to happen

in the House of Representatives—I was wondering if you could tell us a little bit about a development the French first came to in taking part of an artery from, I believe, sheep, and using it to suture an artery in a human being.

Dr. DE BAKKY. Well, the basic work in this field of development was done by French surgeons and French scientists. This work goes back almost 40 or 50 years ago. A man by the name of Carrel, for example, Alexis Carrel, did some very basic and fundamental work which gave us principles that we now use at the present time in the transplantation of blood vessels. As a matter of fact, he obtained the Nobel prize for his work, which was of such great significance.

Mr. ROBERTS. Are there any areas in your field in which you believe, perhaps, some of the other countries are more advanced than we are in this country?

Dr. DE BAKKY. In the cardiovascular surgical field, I would say that at the present moment we are probably in the lead. This is based upon my observations and also my knowledge of the literature as I have traveled about. I was in Russia for example, last December and saw the leading cardiovascular surgeons of their country, both in Leningrad and Moscow, visited their hospitals, and saw the work they were doing, the actual operations, the patients they operated on, and visited their research laboratories. And within this area of development, I would say that we are at least several years ahead of them. But they are going forward very rapidly, and they are making a very intensive effort to catch up with us. They are supporting this kind of research very strongly.

We have had them visit us, after I visited them. There have been several of them, indeed four of them, that have visited this country during the past few months.

I was tremendously impressed with the relationship of these people with us. They showed a distinct warmth of reaction to our hospitality, just as they were very hospitable to us—all the Americans who have visited there. And I can speak personally about the relationships, which I regard as very fine ones. They are very anxious to continue to exchange with us, their people, ideas, and literature.

Mr. ROBERTS. It strikes me as a little bit odd that so many of their doctors are women. Why is that true?

Dr. DE BAKKY. I was rather impressed with that, myself, and I asked about this. They told me that approximately 70 percent of their physicians are women, and I saw many of them in the operating rooms, as assistants for the most part, some of them operating on their own. All the professors I saw, heads of departments, were men. But the reason they gave for this was the fact that many of their men go into other fields of science, particularly fields in which the women find themselves not able to compete as well. In the field of medicine, because in some respects it is a kind of extension of medical care on the part of women who go into nursing, they like it, this appeals to them, and they can carry out much of the work of physicians very easily. So this has appealed to them, and I think it is merely a matter of selection and not of direction.

Mr. ROBERTS. Thank you very much, Doctor.

Any questions, gentlemen?

The gentleman from Florida?

Mr. ROGERS of Florida. I am sorry I was late and did not hear all of your statement, but I have your testimony. I wondered if you felt that there are sufficient medical personnel in our country to carry on a program like this. In our national institutes that have already been established, cancer, heart, and so forth, the Congress has appropriated certain moneys. In fact, Congress has appropriated more now than they say they can use, because of personnel. Now, if that is true in our own country, that our already established institutions cannot even use the money the Congress feels is necessary to have an acceleration of research in these very vital programs, I wondered what your opinion was as to how practical it would be to establish another institute to start on an international program of research.

Dr. DE BAKEY. Mr. Rogers, first let me say that while it is true that there are certain funds that have been appropriated by Congress that have not been effectively used or cannot be used, this is not true in all areas of research. It so happens that funds have been appropriated for specific areas of study, and this has been done particularly in the hope that these areas would be developed and expanded.

Now, they could not be used effectively for several reasons, one of which you gave, and that is that there are not enough trained people in this field. Funds have been applied to the training of more research workers in these fields. I happen to be familiar with one aspect of this, in, for example, drug development, in the Heart Institute. I happen to be on the Council of the Heart Institute, and so I am thoroughly familiar with one aspect of it. This is because there is need for more people who have research training in carrying out research in this field, and so funds have been applied for research training for this purpose. But the funds for the actual carrying out of the research in this area could not be used.

I do not regard this as evidence that we cannot expand our total research program. As a matter of fact, there are actual research projects that could not be paid this past fiscal year, because the funds were not available. We had used up all the funds.

Mr. ROGERS of Florida. What fields?

Dr. DE BAKEY. In the Heart Institute field.

Mr. ROGERS of Florida. Even in the Heart Institute field, you did not have sufficient moneys?

Dr. DE BAKEY. Yes, to pay for all of the projects that were approved. This was at the last meeting which I attended. Now, this almost invariably occurs. This has occurred every year that I have been on the Council.

Mr. ROGERS of Florida. And how long have you been on the Council?

Dr. DE BAKEY. I have been on the Council 2 years.

Mr. ROGERS of Florida. And each year it has occurred?

Dr. DE BAKEY. That is right. And it has occurred previously, too. But these funds to which you refer were for specific purposes.

Now, I do not think this is an argument against the expansion of moneys by Congress. As a matter of fact, I think that in some respects, this is a very enlightening factor, and also it is evidence of the fact that the money is being well used. If it could not be used effectively, it was not squandered. It was held in abeyance.

Mr. ROGERS of Florida. I was not implying that it had been squandered.

Dr. DE BAKKEY. I appreciate that. But what I am getting at is that it is being done, carried out, in an effective way, and since the money could not be used effectively for this highly specific purpose, it was not used at this time. This does not mean that it will not be used in the future. I think it will, as soon as these additional research workers become available. And they are becoming available, because research training funds are being applied for that purpose.

Mr. ROGERS of Florida. May I ask you just a question or two about projects we did not have sufficient moneys for such as heart research?

I presume we had the personnel to carry them out.

Dr. DE BAKKEY. Oh, yes. These were projects that were all approved, have gone through the mill of being screened out by the study sections, and they came up to the Council, having received full approval for the project.

Now, what has happened in the past, and what I hope will happen in the future, is that these projects will come up for consideration when funds become available during the coming fiscal year and will receive moneys for support. This has happened in the past, fortunately.

Mr. ROGERS of Florida. Now, I wonder if you think it is necessary to form a new institute in order to carry on a program of international research, as is proposed; or could it be done under the present setup, where we have our institutes, and simply provide some money for an international exchange?

Dr. DE BAKKEY. We have to a certain extent been doing this.

Mr. ROGERS of Florida. That is what I thought.

Dr. DE BAKKEY. But only to what I would regard as a very restricted extent and in my mind an inadequate extent. We have been doing it only with the policy that certain types of research that we receive requests for will be supported, providing they are approved, and providing we feel they cannot be done in this country.

Mr. ROGERS of Florida. One other question. For instance, in the foreign aid authorization bill, that was passed by the Congress yesterday, there was a provision and an authorization for an international program of research. Of course, they are trying to funnel it through the United Nations and the World Health Organization. Do you feel this is necessary, after that has been done?

Dr. DE BAKKEY. I feel that the most effective way that we can carry out the program as we have conceived it, and as is described in the bill, is through another institute. I think this is the only way that you are going to give proper direction, coordination, stimulation for expansion of the program. To do it in the manner in which we are doing it now I think would be a very ineffective way of doing it. I regard this as a very uncoordinated effort on our part.

Mr. ROGERS of Florida. In other words, you would rather have one organization set up to concentrate on the international programs?

Dr. DE BAKKEY. And with that purpose in mind.

Mr. ROGERS of Florida. You feel that would be more effective than working through the United Nations and their organization?

Dr. DE BAKKEY. Yes; I do.

Mr. ROGERS of Florida. Thank you very much.

Mr. ROBERTS. Thank you, Mr. Rogers.

The gentleman from Nebraska?

Mr. BROCK. Doctor, we have areas in other countries where we have less cardiovascular diseases than we have in the United States. Under this program, we could send research peoples to those countries to study and determine why there are less cardiovascular diseases, and we could also probably determine whether it is the diet which is derived from the soil, whether perhaps there may be trace elements. I do not understand the complete physiology of this problem, but it would be possible for you, under this international bill, to send research people to find out why this is true?

Dr. DE BAKERY. Very definitely. I referred very briefly to this as an example of how this could be done. We have, as I said before, a very high rate of cardiovascular disease in this country. The last estimate was 460 per 1,000 population. Ceylon has a rate of 68 per 100,000 population. The opportunity to study these significant differences in the rates of disease, not only in heart but in cancer and many other things, including certain infectious diseases, I think would constitute a very important development and would undoubtedly further our knowledge in this field. This is evident, too, from previous studies which have been carried out along these lines.

I also exemplify this with a subject with which I am familiar which is entirely different. Some years ago, on the basis of certain types of research efforts, there was evidence that a form of treatment of burns which was different from that which we have employed might be more effective than the one we were employing. This included the use of a salt solution, just to use that term, a lay term.

The concentration of burns in this country is not very great. I mean, you might have a catastrophe, but we did not want to wait for a catastrophe, hoping, of course, that one would never occur, in order to have enough patients with burns to be able to test this method.

We were fortunate enough to be able to find, in South America, a place where they were having a great deal of burns consistently, over a long period of time. The burn rate in that particular area was very high, and they had them concentrated in a certain institution.

Through cooperation with this foreign country, we were able, through the Institutes of Health, to establish a research program, to send our research workers down there, to supervise the program, and within a period of a year we had accumulated enough data to be able to say that this method had some merit in certain respects, and to answer the question.

This is just an example. There are many one can use to demonstrate how the extension of research across our borders and across countries would be a very effective way of advancing and rapidly advancing our knowledge in many fields, to the benefit of our own people as well as other peoples.

Mr. BROCK. Thank you, Mr. Chairman.

Mr. ROBERTS. Thank you very much, Dr. DeBakey.

Our next witness is Dr. Cecil Wittson, professor and chairman of the Department of Neurology and Psychiatry at the University of Nebraska College of Medicine, Omaha, Nebr.

I will ask the gentleman from Nebraska to introduce our next witness.

Mr. BROCK. Dr. Wittson, sir, we are happy to have you here.

As the chairman pointed out, Dr. Wittson is chairman of the Department of Neurology and Psychiatry at the University of Nebraska and Director of Nebraska's Psychiatric Institute.

We in Nebraska are proud of our medical center in Omaha, Nebr., and we feel that in Omaha we are developing a medical center second to none.

We are indeed happy, Dr. Wittson, that you are taking of your valuable time to give us testimony on this international health bill.

**STATEMENT OF DR. CECIL WITTSON, PROFESSOR AND CHAIRMAN,
DEPARTMENT OF NEUROLOGY AND PSYCHIATRY, NEBRASKA
PSYCHIATRIC INSTITUTE, THE UNIVERSITY OF NEBRASKA
COLLEGE OF MEDICINE**

Dr. WITTSON. Thank you, sir. I consider it a very special privilege to appear before this committee in support of this legislation, because I am convinced that the establishment of a National Advisory Council and a National Institute for International Health and Research would provide an effective and an economical means of furthering international cooperation in medical research training and programming.

I am convinced that unless such action as is now proposed is taken, medical progress will be unnecessarily delayed. And conversely, the legislation under discussion would tremendously increase our own ability to prevent and treat disease.

At the outset, I would like to say that I would be less than frank if I did not admit that my primary concern is the health of the American people, and perhaps particularly my own Midwest and native Southland; although I do recognize a moral obligation and opportunity to help people wherever they live.

Now, since American medicine, like American industry, has an unsurpassed ability for the implementation of new ideas, and new scientific discoveries, no country stands to gain more than our own from new medical discoveries, wherever they may be found.

Likewise, though I am quite naive in matters of political science and international affairs, it would seem to me that there is hope in this proposed common endeavor for all men that significant contributions would be made toward world peace.

As pointed out, my specialty in medicine is psychiatry, and so I will focus my remarks primarily on matters of mental health.

Psychiatric practice has undergone marked changes, and very tangible results are quite evident. As you know, during the past few years in this country, we have made considerable strides. Until 4 years ago, each year the number of patients in our public mental hospitals was steadily increasing. This rise was halted first in 1956, and each year since 1956, although we do not have the countrywide figures for the last fiscal year as yet, there has been a reduction in the number of patients actually in residence in the State and other public mental hospitals.

However, we are still confronted with what I think is an appalling fact, that during 1957 our mental hospitals listed 2,430,000 persons on their books. And last year more than a half a million people were admitted to the mental hospitals of this country, and we can

expect that 1 out of 10 persons alive in this country today will at some time during their lifetime be in a mental hospital unless we do develop more effective means of prevention and treatment.

Fortunately, I think there is sound reason to believe that these aims can be accomplished through research. The dramatic advances that have occurred in the various fields of science, the physical sciences, the biological sciences, give all medicine, including psychiatry, an opportunity that we have never had before. Things that were unthought of, impossible, just a few years ago, are now on the horizon in psychiatric research. And I think that we should do everything to take maximum advantage of these opportunities that are being presented to us to further our medical knowledge.

Further, I do not think that we are doing that at the present time. There are a good many factors responsible. It has been mentioned that there is a shortage of professional personnel for research. This is particularly true in my own field for psychiatric research. The training of psychiatrists and other specialists in this field is a slow process. Only about 7 percent of the doctors graduating from American medical schools go into the practice of psychiatry, and of course few will follow a strictly research career.

So that I think it would be quite unrealistic for us to isolate ourselves unnecessarily from the neuropsychiatric research activities that are going on in other countries.

Historically, psychiatry, like other branches of American medicine, was for many years largely dependent on the discoveries and advances in other countries. For the beginning of American psychiatry, we owe debts to a number of pioneers, such as Kraepelin, Kretschmer, and Wernicke of Germany, Janet of France, Freud and Von Jauregg of Austria, White, Meyer, and Brill of this country.

Now, since World War II, the U.S. Public Health Service, our Armed Forces, various State universities, as well as private capital, have built and established a number of psychiatric research facilities in this country.

Psychiatric research is quite complex. It requires the combined efforts of a number of different specialists—biochemists, psychiatrists, psychologists, geneticists, epidemiologists, pharmacologists. And that is not by any means an all-inclusive list.

We will continue to be short of trained investigators in this country for some years to come.

Other countries have clinics and laboratories devoting themselves to psychiatric research; for example, the famous Montreal Psychiatric Institute in Canada, such outstanding European laboratories as the Faculte de Medicine in Marseille, France, the University of Freiberg in Germany, the University of Cambridge in England, the Karolinska Institute in Sweden. The European situation is very much like ours. These well known centers are well staffed and equipped. The European countries have any number of other laboratories and clinics that are handicapped by shortage of staff and equipment.

Now, international cooperation and communication in psychiatry is occurring, but I do not think it is occurring to an optimal degree. We depend largely on personal contacts and antiquated methods of communication for our operation, and this situation has often resulted in unnecessary delay.

To overcome these roadblocks, I think the leadership, the administrative framework, and the financial assistance that is proposed in this legislation would be of tremendous help.

American psychiatry has shown a remarkable ability to assimilate and effectively disseminate advances originating in other countries. I would like to give just a few illustrations, which will show our need for the help of other countries, and also our ability to put to work what is found in these countries.

Psychoanalysis, with its important contributions to psychodynamics and to psychotherapy, came to us from Austria. However, its adoption in this country was very slow. To the same country we owe a debt for the treatment of general paresis, and for the introduction of insulin shock treatment. The psychiatric use of metrazol came from Hungary. Then the very effective treatment procedure of electric shock was discovered in Italy. Psychosurgery was originated in Portugal. Drug therapy for alcoholism—antabuse—came to us from Denmark. The tranquilizing drugs, about which you have heard so much, came to us from India and France. One of them, rauwolfia, was used in India for many years, centuries, but went unnoticed by Western countries until a French physician noted the tranquilizing effect of this drug on patients. And then, following that, the tranquilizing drug was synthesized first in a French laboratory.

Now, American industry, the pharmaceutical industry, is spending a tremendous amount of effort and funds in developing new tranquilizing drugs, and the psychopharmacological center of the National Institute of Mental Health is pursuing this work with considerable vigor.

Drugs of another nature, an entirely different nature, those that produce temporary psychotic states, the so-called hallucinogens, that were very valuable to us in psychiatric research, came to us also from foreign lands. One of the more important, lysergic acid diethylamine (LSD), was discovered in Switzerland. A period of some years, as I recall 6 years, elapsed before the first studies with this very valuable scientific research instrument were made in this country.

In the same way, new and effective techniques for hospital care, such as the open hospital, and for community psychiatry, were brought to us from foreign countries, after considerable delay.

I think that we have a large number of current and on-going needs for collaboration. In fact, they are so numerous that I will not attempt to enumerate them in this brief time. I would like to indicate just one—mental subnormality, or mental retardation, is among the leading causes of chronic disability in this country. Approximately 3 percent of the slightly over 4 million babies born per year in this country are handicapped by some degree of mental retardation.

Now, in this country we are just beginning medical research in this area. What is known here and elsewhere indicates to us that the attitude of pessimism regarding this condition is quite unwarranted. It is clear that there is an opportunity through research to do much toward the prevention of this condition, or these conditions, rather, that also valuable leads toward the understanding of other neuropsychiatric conditions will come out of this type of research.

Now, in England, France, Switzerland, the Low Countries, considerable work has been going on for some time in this field. Just in

the past several years have the American medical colleges entered into this area of research, and they are just beginning to establish centers for the study of this condition.

Certainly it would seem to me definitely to our advantage to know what has been going on in Europe, know it thoroughly, know what they have found positively and what they have found negatively, know what the errors have been as well as what their advances have been. Quite naturally, negative results and errors do not get into the literature quite as readily as dramatic findings do.

Now, as I have already indicated, collaboration between American and foreign investigators is usually on a personal basis. But this has occurred with very fruitful results. To give one example, Dr. Moruzzi of the University of Pisa, Italy, before the war worked with Lord Adrian in Cambridge in England, and then he spent a year at Northwestern University in Evanston, Ill., where he collaborated on research on the brain stem reticular formation with Dr. Magoun and others. This research opened up vast areas in brain research, new areas, and has led to a better understanding of the mechanisms of epilepsy, anesthesia, coma, and has also given us valuable leads in psychophysiology.

The same Italian doctor has recently collaborated with Dr. Robert Dow of the University of Oregon Medical School on the problems of the brain, the cerebellum.

From my own experience, I know the benefits that can be derived from the sharing of problems, ideas, and resources, on a regional or interstate basis. In the North Central States, Nebraska, the Dakotas, and western Iowa, we have effectively crossed State lines for these purposes. The research and training hospital at the university, which I direct, has had underway now for 3 years a four-State program of graduate training, and more recently we initiated a multiple hospital interstate program of research.

I do not think that crossing of State lines is too dissimilar, in many ways, from the crossing of international boundaries. We were assisted in this interstate work by the National Institutes, and in the same way I would think the National Institutes could assist in the program with other countries.

I have spoken to you as an individual, but I would like to state that my specialty organization, the American Psychiatric Association, has gone on record as being strongly in favor of this bill.

Finally, I would like to emphasize the fact that I do think we are on the threshold of great advances in psychiatry, but that we are moving much too slowly. And this bill that is being proposed would enhance our ability toward a breakthrough in mental illness.

That completes, sir, my summary of my statement.

Mr. ROBERTS. Your complete statement will be included in the record.

(The prepared statement of Dr. Wittson is as follows:)

PREPARED STATEMENT OF CECIL L. WITTON, M.D.

I am Cecil Wittson, professor and chairman of the department of neurology and psychiatry of the University of Nebraska College of Medicine, director of its Nebraska Psychiatric Institute, and director of mental health for the State of Nebraska; special consultant to the National Institute of Mental Health and consultant in neuropsychiatric research to the Surgeon General of the U.S. Navy.

It is a distinct honor and privilege to be invited to appear before any committee of Congress. I regard it as a special privilege to appear before this committee in support of Senate Joint Resolution 41 and House Joint Resolution 211. I am convinced that the establishment of a National Advisory Council and a National Institute for International Health and Research, would provide an effective and economical means of furthering international cooperation in medical research, training, and planning. I am also convinced that unless action such as now proposed is taken, medical progress will be unnecessarily delayed. Conversely, the legislation under discussion would tremendously increase our ability to prevent and treat disease.

I would be less than frank if I did not admit that my primary concern is the health of the American people, although I do recognize a moral obligation and opportunity to help people wherever they live. Since American medicine, like American industry, has an unsurpassed ability for implementation of new scientific discoveries, no country stands to gain more from new medical findings than our own. Likewise, though naive in matters of political science and international affairs, it would seem to me that there is hope in this proposed common endeavor for the good of all men, that significant contributions would be made toward world peace.

Since my medical specialty is psychiatry, I will focus my remarks on the problems of mental disease. Psychiatric practice has undergone marked changes, and tangible results are strikingly evident. As you know, during the past few years in this country we have made considerable strides in the treatment of the mentally ill. Until 4 years ago the mental hospitals of this country were becoming a repository for an increasing number of mentally ill persons. This rise was halted in 1956, and each year since there has been a slight decrease in the number of patients actually residing in mental hospitals. Yet, we are still confronted with the appalling fact that, during 1957, our mental institutions listed 1,430,000 patients on their books. Last year more than half a million patients were admitted to the mental hospitals of the United States and we can expect that 1 out of every 10 persons will spend part of his life in a mental hospital, unless more effective means of prevention and treatment are developed.

Fortunately there is sound reason to believe that these aims could be accomplished through research. The dramatic advances in the physical and biological sciences present to all medicine, including psychiatry, an opportunity for research unthought of, and impossible, just a few years ago. We should do everything possible to take maximum advantage of these new opportunities to improve our medical knowledge. This I do not believe we are doing. There are many factors responsible. There is an acute shortage of professionally trained personnel for psychiatric research. The training of psychiatrists, and other specialists in this field, is a slow process. Further, only 7 percent of the physicians graduating from American medical colleges go into the practice of psychiatry and few will follow a research career. Obviously, it would be unrealistic for this country to isolate itself from the medical research activities of other countries. We need their help, and they need our assistance.

Historically psychiatry, like other branches of American medicine, was for many years largely dependent upon the discoveries and advances made in other countries. For the beginning of modern American psychiatry we are most heavily indebted to such outstanding pioneers as Kraepelin, Kretschmer, and Wernicke of Germany; Janet of France; Freud and von Jauregg of Austria; Gjessing of Norway; William A. White, Adolph Meyer, and Abraham Brill of the United States.

Currently the United States is developing very rapidly its capacity for psychiatric research. Since World War II the U.S. Public Health Service, our Armed Forces, various States and universities, as well as private capital, have built and established a number of psychiatric research facilities. Comprehensive psychiatric research is extremely complex, requiring the combined efforts of a variety of scientists—biochemist, psychiatrist, psychologist, sociologist, anthropologist, neurologist, biometrician, neurophysiologist and psychophysiologist, anatomist, pathologist, geneticist, pharmacologist, epidermiologist—and yet this is not an all-inclusive list. Nationally we will continue to be short of trained investigators for some years to come. Other countries likewise have clinics and laboratories devoting themselves to psychiatric research—for example, the famous Montreal Neurological Institute in Canada, and such outstanding European laboratories as the Faculte de Medicine in Marseille, France; the University of Freiberg in Germany; the University of Pisa in Italy; the

University of Leiden in the Netherlands; the University of Cambridge in England; and the Karolinska Institute in Sweden. The European situation is similar to ours in that such institutions as I have named are well equipped and well manned, including on their faculties some of the world's most eminent scientists. However, there are other European laboratories handicapped by inadequate equipment and personnel.

International cooperation and communication in psychiatry is occurring but not to an optimal extent. We depend too much on personal contacts and horse-and-buggy methods of communication and cooperation. This situation has too often resulted in unnecessary delay in bringing new techniques and discoveries to our country. To overcome these roadblocks to more effective international cooperation in research and development, we need leadership, administrative framework, and financial assistance such as proposed in this legislation.

American psychiatry has shown a great ability to assimilate and effectively implement advances originating in other countries. A few illustrations will underscore this point and at the same time confirm the need for more intensive cooperation between the scientists of the world.

Psychoanalysis with its important contributions to psychodynamics and psychotherapy came to us from Austria; however, its adoption in this country was very slow. To the same country we owe a debt for the first effective treatment for general paresis, and the introduction of insulin shock therapy. The psychiatric use of metrazol came to us from Hungary. Then the very effective treatment procedure, electric shock therapy, was discovered in Italy. Psychosurgery was originated in Portugal. Drug therapy for alcoholism—antabuse—was discovered by a Danish scientist. The tranquilizing drugs, about which you have heard so much, came to us from India and France. One, Rauwolfia, had been used in India for centuries but went unnoticed by the Western countries, until a French physician noted the tranquilizing effects on patients. The next logical step, synthesization of drugs with tranquilizing effects, first occurred in a French laboratory and is now being pursued with vigor and unstinted expenditure of funds by the American pharmaceutical industry. Drugs of an entirely different nature—those capable of producing a temporary psychotic state in experimental subjects, the so-called hallucigens, most valuable in psychiatric research—came to us from foreign lands. After the discovery of one of the most important of these drugs, lysergic acid diethylamine (LSD), in Switzerland, a period of years elapsed before the first studies with this valuable research instrument were made in the United States. In the same way, new and effective techniques of hospital and community psychiatry were brought here from foreign shores only after considerable delay.

These are only illustrative examples of how we continue to draw psychiatric knowledge from other countries of the world.

Our current and ongoing needs for collaboration are so numerous and great that there would not be time to even enumerate them in this brief statement. Let me just indicate one as an example. Mental subnormality, or mental retardation, is among the leading causes of chronic disability affecting 3 percent of the 4 million children born annually in the United States. Although medical research particularly in this country is just getting underway, it is now obvious that the former pessimistic attitude towards this condition is unwarranted. It is clear that much can be done towards the prevention of mental retardation, further, that our diagnostic procedures need to be sharpened, and that research in this area is making a very significant contribution toward the better understanding of all kinds of neuropsychiatric disorders. England, France, Switzerland, and the low countries are working intensively in this field, while American medical colleges are just beginning to establish centers for the study of mental subnormality. Would it not be to our definite advantage to work closely with the other countries, so that we may keep abreast of their advances and learn of their errors? Quite naturally, negative results and errors are somewhat slower in publication than dramatic discoveries.

As previously indicated, collaboration between American and foreign investigators is usually on a personal basis, but it has occurred with fruitful results. A few instances only need be cited to illustrate this point. For example, Dr. Giuseppe Moruzzi of the University of Pisa, Italy, who before the war had spent some time working with Lord Adrian in England, spent a year at Northwestern University School of Medicine where he collaborated on research on the brain stem reticular formation with Dr. H. W. Magoun and others. This research opened up vast new fields in brain research and has led to new under-

standing of the mechanisms of epilepsy, anesthesia, and coma, as well as to valuable research in psychophysiology. Dr. Moruzzi has also more recently collaborated with Dr. Robert S. Dow of the University of Oregon Medical School on problems of the cerebellum.

From my own experience I know the beneficial effects which derive from sharing problems, ideas, and resources in a regional or interstate basis. In the North Central States we have effectively crossed State lines for these purposes. The research and training hospital which I direct, has underway a four State program of training, and more recently a multiple interstate hospital program of research. Crossing State lines is not so dissimilar to crossing international boundaries. This has been accomplished with the assistance of the National Institutes of Health and in much the same way the National Institute could assist a similar program with other countries.

I have spoken as an individual, but I would like to report that the American Psychiatric Association has gone on record as being heartily in favor of this bill.

Finally, I would like to emphasize the fact that we are on the threshold of great advances in psychiatry but are moving much too slowly. It is my firm conviction that the proposals contained in House Joint Resolution 211 would greatly enhance our ability to achieve a breakthrough in mental illness.

Mr. SCHENCK. Mr. Chairman, I want to express my own deep appreciation to Dr. Wittson for his very splendid and excellent and inclusive statement. I have been very much interested in it.

I appreciate your recommendation that much good can be accomplished perhaps for the people of our own Nation by this free exchange of international research information.

This committee is also very deeply interested in not only questions of health, but questions of highway traffic safety and air traffic safety. A part and an important part of our highway traffic safety seems to be stemming from behavior problems of drivers, perhaps caused by a number of reasons. I do not know whether you care to make any comment as to what approaches can be made to this problem by your American Psychiatric Association in an effort to encourage better driver behavior in the highway traffic field.

Dr. WITTON. Sir, since I have given some thought to this problem, and we have considered going into some research in this area, I could answer with a very brief statement. What I think is needed is careful medical research in this area. What we ordinarily see as listed as the causes of accidents are really symptoms of other things. And I think there ought to be coordinated medical research, that there should be examinations, for example, of accident-prone drivers, if we can use that expression, controlled with drivers who have had no accidents. But those examinations should cover the full range of medical problems, eye, ear, nose, and throat, internal medical problems, orthopedic, and psychiatric. And from such work, I think that we could get some very good clues, sir.

Mr. SCHENCK. It is my hope—and I am sure this is shared by other members of the committee, because we have often discussed it—that in the years ahead there will be some progress along those lines.

Most people seem to think that driving a car is a right instead of a privilege. Consequently, many questions have been raised relative to and involving licensing laws for drivers and further examination of accident-prone drivers, who perhaps are causing tremendous economic losses to insurance companies as well as a great deal of injury and suffering and death to their victims on the highway—all of this is very important. And I would hope that our whole scientific community would be interested in seeing what can be done.

Mr. ROBERTS. Mr. Rogers?

Mr. ROGERS of Florida. Dr. Wittson, I enjoyed your testimony. We all appreciate your being here. Also I want to observe that Nebraska is very fortunate in having a gentleman from North Carolina there to help them with their mental problems.

I noticed on page 3 you say about 7 percent of the graduates of American medical colleges will go into the field of psychiatry. What would you say is the estimated need for psychiatrists today?

Dr. WITTON. Slightly more than twice as many as we have.

Mr. ROGERS of Florida. Almost twice as many? A little over twice as many?

Dr. WITTON. Yes. We could use now about twice as many.

Mr. BROCK. Would you yield at that point?

Why is there such a shortage of psychiatrists? Is it the complex subject matter? The members graduating from medical colleges do not want to go into the post graduate work of psychiatry?

Dr. WITTON. Yes, sir. There are a number of factors, Mr. Brock.

Before World War II, we did not have too many definitive methods of treatment. Research was diffuse. Departments of psychiatry in medical colleges, with some very notable exceptions, were not well developed.

During World War II, psychiatry advanced terrifically. And departments of psychiatry began to grow in the colleges of medicine. Our methods of treatment began to improve and in fact have now improved to the point where we can also train general practitioners to carry out some of these methods of treatment in their home communities.

So that the departments of psychiatry, throughout the country, as well developed departments, are a relatively recent development.

Psychiatric practice, private practice, pays very well. Hospital practice often does not pay too well. So that there is, you might say, a financial factor. Then there are some individuals who, for various reasons, have already chosen another specialty that seems to them more dramatic. I think now that we are teaching psychiatry all 4 years in the medical schools, and it is the only clinical subject usually that is taught all 4 years, we are going to see more and more people going into psychiatry. We are beginning to see that in our own State.

Mr. ROGERS of Florida. I was just going to ask whether or not there is an indication that you are attracting more and more to the field of psychiatry?

Dr. WITTON. Yes, very definitely so.

Mr. RHODES. Further on that question, do you feel that private practice is not too desirable, because of the length of time required for a patient. It is not a very profitable field for the individual physician to go into. I believe you did say the patient in most cases needs hospitalization.

Dr. WITTON. Well, it is also not only the time; it does take 14 years from graduation from high school until the time the physician is—

Mr. RHODES. But what I had in mind was the time that a physician must spend with a patient suffering from mental illness.

Dr. WITTON. Yes.

Mr. RHODES. It is not like in other specialized fields, where time is limited. But in this particular field, it seems to me that a lot of time must be spent with a patient.

Dr. WITTON. Quite true. Not only the patient himself, but his family, often.

Mr. ROGERS of Florida. Now, one other question, Doctor. You say that really what this would be able to provide would be leadership, administrative framework, and then, of course, financial assistance. I wonder if you have given any thought to what might be a necessary amount of money to establish, say, for the first year, or maybe the first 2 or the first 5 years, the institute as you envision it, in order to get it in working condition.

Dr. WITTON. I would have to admit, sir, that I would not feel competent to give a precise amount. Of course, during the first year, a great deal of organization has to take place. But I do not think that I could answer that budgetary question as to just how much could be utilized during the first year.

Mr. ROGERS of Florida. What personnel do you think should be called upon? Administrative people first?

Dr. WITTON. I would say, following the pattern that has worked so well with the other Institutes of Health, a Council—and I believe the bill provides for 17 members—of professional persons and outstanding laymen. Then the establishment of another National Institute, with a director and a staff.

Mr. ROGERS of Florida. And by drawing on the experience we have had, you think we could figure out what money would be required?

Dr. WITTON. I would like to say, Mr. Rogers, that I have been terrifically impressed during the years I have worked with the National Institute on the committee with the efficiency, devotion, and dedication of the people there, and their ability to carry out a program and to get it underway, and at the same time not exert too much control.

Mr. ROGERS of Florida. I share that feeling with you. I think they have done an excellent job.

Now, my last question: Do you know, as far as mental research is concerned, whether there have been sufficient funds to carry on what you think is an adequate program of medical research?

Dr. WITTON. There were at first, but we are rapidly outgrowing the suit, and I think we can effectively utilize more moneys than we have had.

For example, I believe that on the mental health projects, unless the appropriation is raised this year, I think we will find ourselves quite short of funds in that particular area.

Mr. ROGERS of Florida. On approved projects?

Dr. WITTON. Yes. For example, it has been said that in the September study committee meeting, we already will review some 75 projects. And I do not think, unless the funds for the National Institute of Mental Health is increased, there is going to be enough money to cover even the good projects that will come in.

Mr. ROGERS of Florida. Was that true last year? Or do you have knowledge of that?

Dr. WITTON. I do not have the precise figures, sir.

Mr. ROGERS of Florida. I just wondered if you could tell us that from your own knowledge.

Mr. ROBERTS. The gentleman from Nebraska?

Mr. BROCK. Dr. Wittson, I enjoyed your cogent statement. And I would like to ask you whether you at the Nebraska University accept graduate students from foreign countries to do post graduate work in psychiatry.

Dr. WITTSON. In my own department of neurology and psychiatry, we have some very excellent men. However, because of our local needs in the midwest, because the Institute, the department of psychiatry, is largely supported by Nebraska funds, and because we can, which is another reason, we restrict our resident training to foreign doctors who have come over on an immigrant visa. That is our own rule. We do not have to. But we are doing it, because we want to bring these men in, but we want to keep them in Nebraska, or in the Midwest, if we can.

Mr. SCHENCK. Then, Dr. Wittson, this is on an exchange student program, such as is done in some other institutes?

Dr. WITTSON. No, sir. And this is just a rule of our own department, sir.

Mr. SCHENCK. In some instances and related to the exchange student plans some of these people are brought over here, trained, with a definite understanding that they will go back to their own country and give the use of their knowledge there. And as I understand your statement, these people to whom you have just referred will be permanent immigrant residents of this country and the people of our Nation will thus receive the benefit of this training.

Dr. WITTSON. That is those who are seeking the full 3-year training. Now, we have had people over for short times, and we have encouraged that, and we are very happy to have them. But if we are going to make the investment of 3 years of intensive training, we want to at least have the opportunity of keeping them.

Mr. BROCK. We heard yesterday about the new phenothiazine tranquilizer coming from France. It is comparatively new here, I imagine. Is this use of these tranquilizers taking the place of some of the electric shock treatments, or do you use the electric shock treatments on certain types of patients and the tranquilizing drugs on other type patients?

Dr. WITTSON. It is true that we continue to use electric shock. But the tranquilizing drugs have very dramatic effects. In the whole practice of psychiatry, particularly hospital practice, I know of nothing that has occurred with such marked effect. And new drugs are being developed almost monthly, or weekly, almost. It requires a tremendous amount of coordinated effort, in screening these drugs, then testing them clinically, and evaluating them, as well as developing new ones. We do use electric shock for certain conditions, particularly depressions. But here another type of drug is being developed for the treatment of depressions.

Mr. BROCK. Do you achieve cures with the tranquilizing drugs, or do you use it as a depressant?

Dr. WITTSON. It depends on the particular condition we are treating. I would say we do obtain cures at the time we are giving tranquilizing drugs, and the tranquilizing drugs themselves were perhaps one of the most important factors, but not the only factors, sir.

Mr. BROCK. One further question, Doctor. You stated that 3 percent of the babies born are mentally retarded. Are you crashing through and finding the reason for this in your research?

Dr. WITTSON. Yes. We have found—I say “we,” and I am speaking of the profession, now—during the past few years causes of certain types of mental retardation. There are indications that there are many things that could be done for prevention. Now, mental retardation is not a condition. It is really a symptom of many different types of things. Some forms of mental retardation are due to inborn errors of metabolism, biochemical in origin. And we have found the cause of one, for example, and now have a treatment, not as effective as we hope to have, but a treatment. This particular condition is very much like diabetes, in that diabetes—the carbohydrate metabolism is affecting this condition, and the protein metabolism is affected. And we have as a result of that developing mental retardation.

There are many other things that we know now will cause abnormalities of development which can affect the mental ability, as well as psychological factors which can adversely affect the intellectual development of the child.

Mr. BROCK. You stated in your testimony, Doctor, that you are transcending State lines, and that you are also doing work in the Dakotas. Are the problems different in the Dakotas, or in Nebraska?

Dr. WITTSON. The general problem is the same. One of the reasons that we went across the State lines is that even the same drug is not administered exactly the same way in different hospitals. So it gave us a better variety of treatment and patients, a larger number of patients.

Mr. BROCK. Thank you, Doctor.

Mr. ROBERTS. The gentleman from Pennsylvania.

Mr. RHODES. Dr. Wittson, I feel that your statement was most interesting and very valuable to the committee. I have always felt that teachers in medicine, and particularly in psychiatry, are making a tremendous contribution to the people of the Nation and at a personal sacrifice.

I would like to ask a few more questions. To what do you attribute the decline of patients in our mental hospitals?

Dr. WITTSON. This has occurred since 1956. First, I would say the introduction of the tranquilizing drugs. Also, because we had underway training programs and have turned out a number of physicians and others trained, so that we were able to take better advantage of the beneficial effects of the tranquilizing drugs.

Another factor has been our ability to take care of patients outside of the hospital, so that we can discharge patients earlier. Now, part of that has been made possible by the tranquilizing drugs and part of it by other improvements in psychiatric techniques.

Mr. RHODES. There is no real cure, however, for persons suffering from mental illness, is there? If not, is it possible for more of them to return to their families and to live a fairly normal life?

Dr. WITTSON. My own answer to that, sir, is that I have patients that I know of, that I have treated myself, who have been out for as much as 20 years. Also, that we have recently completed a study of patients who were unemployed, a small number, for more than 4 months before they came in to treatment. We compared the most they ever earned in any one month—and these were wage earners. Then, at the end of the treatment period, after they had left the hospital and been discharged from followup care, of the first 23 we studied, 18 of

them were now making more regularly than they had ever made in any one month.

Mr. RHODES. What about persons who spend a year or more in a mental hospital? Is there any hope for them?

Dr. WITTON. Statistically, after 5 years there is just one chance in a hundred. But I refuse to accept that as an absolute figure. And we have taken patients that have been hospitalized 5 or more years, treated them, and rehabilitated them.

Mr. RHODES. Is it true that in the case of mental illness, there is a general mental retardation?

Dr. WITTON. I am sorry, sir. I did not quite hear.

Mr. RHODES. Do mental patients suffer a general retardation in their mental capacity?

Dr. WITTON. Not necessarily; no, sir.

Mr. RHODES. For instance, in schizophrenia, retardation of personality, deterioration of personality—is that inevitable?

Dr. WITTON. If untreated or unsuccessfully treated, that is true, sir. But if successfully treated, that is not true, sir.

Mr. RHODES. I would like to ask a question in regard to international health. Is there more mental illness, percentagewise, in the United States, than there is in other countries?

Dr. WITTON. I am glad you asked that, sir, because one of our great needs for international cooperation comes from our inability to answer just the question that you asked me, sir.

We have fairly good facts for this country, England, and some of the other well-developed countries. But we have almost no prevalence figures, epidemiological data, for most of the world. And it would be most valuable for us if we knew the true prevalence of mental illness in some small country with a uniform population that is not very mobile. But we just do not have that data, sir.

Mr. RHODES. You feel that this is in order because of what you could learn in regard to how mental illness affects people in other nations. I was interested in the statement by Dr. De Bakey, when he referred to the study of heart disease, and I think it is particularly true in the case of mental illness.

I was going to take up a question my colleague, Mr. Brock, asked, in regard to those going into the study of psychiatry. I have felt that it was not a very attractive field. It calls for people who are most dedicated and devoted and are willing to make quite a sacrifice, because it does not pay so well as in many of the other medical fields.

Do you think that is true, Doctor?

Dr. WITTON. I would like, sir, to go on record as disagreeing with you, sir, as to its not being an attractive field. I think that it is a very fascinating and rewarding field. But many of my colleagues, I admit, do not.

Now, our treatment results stand up very well with other specialties, and we, as I think I indicated, are on the verge of breakthrough in some very important areas in psychiatry.

Mr. BROCK. Dr. Wittson, is it not true that the reason that we are not showing a greater percentage of cure is that too many of our mental hospitals are used merely as an institution of confinement, rather than a place of treatment? Is that not right, Doctor?

Dr. WITTON. That has been correct, sir.

Mr. ROBERTS. Doctor, how do we compare, in patient percentages, or the portion of our total population, affected by mental illness, with some of the other countries of the world? In other words, where do we stand?

Dr. WITTON. Mr. Chairman, as I indicated, we do not have facts for many countries, and I should emphasize what we have in this country and England and the low countries are not as good as we would like them. We have some sample prevalence studies—how many cases occur during a given period of time, in this country. There are some similar studies in England. Approximately the same number of persons under the age of 60.

Now, when we get above the age of 60, we run into a number of socioeconomic factors that have to do with the incidence of commitment to mental hospitals of persons of advanced years.

Mr. ROBERTS. From what age group do you get the greatest number of patients in your mental hospitals in this country today?

Dr. WITTON. We are still getting the greatest number in the middle decades. But this situation is rapidly changing, as far as the public State mental hospitals and older age groups are concerned.

Mr. ROBERTS. How much of a contributing factor is the problem of alcoholism in this country?

Dr. WITTON. Well, it does account for a number of admissions to mental hospitals. It accounts for a number of persons seeking psychiatric care. Of course, it is a factor in such things as divorce. It probably affects the younger generation of children tremendously—a child brought up by an alcoholic parent or parents is certainly handicapped in his early development. And it is a big factor, of course, in industry, accounting for a significant amount of absenteeism.

Mr. ROBERTS. Are we making any strides in the treatment of alcoholism in this country, if any?

Dr. WITTON. We are making some, more in the matter of technique than anything else, sir. We have had a very interesting experimental, pilot study, in Nebraska, in the last 2 years, in which we have been using the local doctors in the more remote areas for the treatment of the alcoholic patient in his community, using his office as a clinic, and the local hospital if hospitalization is necessary. And that has worked out very nicely.

Mr. Brock, we have some 11 doctors.

Mr. ROBERTS. I take it from your statement, that is, the general import of your statement, that you are of the opinion that perhaps historically Western Europe and the low countries have perhaps made greater strides in the psychiatric field than we have. At least, they started before we did. Is that true?

Dr. WITTON. They started before we did, and for many, many years in this country we were so busy taking care of the thousands of people that we were not involved very much in research. We are now heavily involved and are developing an ability, or I think capability, that will extend far beyond Europe's capability. But individual discoveries for the most part have come out of Europe. Our great contribution, sir, has been our ability of implementation and what I might call eclecticism; in other words, to bring in various ideas, bring them together in one place, and use them in one place.

Mr. ROBERTS. Does the incidence of psychiatric malady seem to be something that hits a country after it has settled down? I mean, we do not seem to find it too much in the pioneering days, do we?

Dr. WITTON. Well, in a pioneer country, first, there are not the facilities, usually, to take care of the people. So we do not know.

Mr. ROBERTS. In other words, you do not hear about it.

Dr. WITTON. And then the span of life is not as great as in a well-developed country. So you do not have people living as long. But we do not have those figures that are reliable. And that is one of our great needs.

Mr. ROBERTS. In other words, as we expand the period of longevity, this is one of the things that come along with it. As you lengthen the lifespan, you naturally get more of this type of thing.

Dr. WITTON. That is correct.

Mr. ROBERTS. What about the cost of treatment of a person affected with mental health? Is it unusually high, compared to other kinds of illnesses, because it is of longer duration?

Dr. WITTON. I am glad you asked that, sir. The cost of the treatment of mental illness is actually in many instances far less than it was, let us say, in the 1930's. That is true for this reason: While the per-day cost is much more, the per-case cost is less, in that we can treat certain types of mental illness in so much less time.

For example, when I first started in psychiatry, back in 1930, it took around 11 months to treat a case of depression. And then we were only successful in about 60 percent of the cases.

Today we can treat the same type of case in a matter of a few weeks.

The treatment of a major depression should not be any more than a major operation, such as gall bladder.

Mr. ROBERTS. Thank you very much.

The gentleman from Ohio, I think, had a question.

Mr. SCHENCK. I am very grateful for Dr. Wittson's statement and for his excellent and helpful answers to our many questions. I have no desire to trespass further on his time, but I have just one question.

We apparently are selling a great many tranquilizer drugs, tranquilizer-type drugs, without proper medical prescriptions. Is this a problem? Should the sale of these drugs be tightened up and require prescriptions before they are provided to the general public?

Dr. WITTON. That is a study that is being made now, sir. I am not certain of the extent to which they are being used without prescription. The indications are that probably it should be tightened, but I cannot make a definite statement on that at the moment.

Mr. ROBERTS. Thank you very much, Doctor. It has been very interesting, and we appreciate very much having you.

Dr. WITTON. I have appreciated the opportunity.

Mr. ROBERTS. The next witness is Dr. Sidney Farber of the Children's Hospital in Boston.

Dr. Farber, we know, of course, of your fine reputation in your field. I think perhaps you are a New Yorker to begin with. At least, you did a lot of your work there before you went to Boston. And we appreciate very much your time. We know you are a busy and valuable person, and we are very happy to have you. And you may proceed now with your statement, as you wish.

**STATEMENT OF DR. SIDNEY FARBER, CHILDREN'S HOSPITAL,
BOSTON, MASS.**

Dr. FARBER. Thank you, Mr. Chairman, and gentlemen.

I regard it as a privilege to be here today to speak strongly in behalf of this splendid bill, this health for peace bill, which has passed the Senate, and which I hope shortly will pass through the House, through the efforts of this committee.

I came here today directly from Montreal. I left the international pediatric congress, which is being held there this week, after hearing 3 days of papers and participating in discussions. And it was a heartening experience to have delegates from all the other countries of the world. Some 2,000 were in attendance, and 550 participated in the scientific program—exchanging ideas, giving freely of their knowledge and their experience, and stimulating one another, so that when they get back home they can carry out better research and give better care to the children of the world.

It was pointed out by the president of the Congress, Dr. Allen Loss of Montreal, the professor of pediatrics there, that about half the children of the world are suffering from starvation; that many of the problems of starvation could be overcome not only by economic means but by medical research, and that what could be learned in taking care of those who are malnourished in the world could be of very great help to the children who are suffering from diseases of metabolism and malnutrition in countries that are better favored, such as Great Britain, Canada, and the United States.

I took the opportunity to talk with leaders of research in the field of child care from the many countries represented, and I want to bring to you informally, from them, their feeling of deep gratitude that the Congress of the United States is considering an act of such tremendous importance. They realize, as those of us who have had the privilege of watching the National Institutes of Health program develop, that this program of support of research in and through the National Institutes of Health represents the greatest single effort in the history of medicine to make for greater medical progress. And they feel, as I do, very strongly that the institution of this International Institute of Medical Research within the National Institutes of Health will make itself felt on the history of medicine throughout the entire world and will bring great benefits to the people of this country.

Now, any student of the history of medicine is familiar with examples, as you gentlemen are now, from your hearings and from your own previous readings, of the great contributions that have been made by men from all over the world.

In this international meeting in Montreal, you will be interested to know that accidents, which cause more deaths among children than any disease, had a very big segment of scientific study, and that mental retardation, infectious disease, malnutrition, psychiatric and neurological disorders, all have their day; and that is one of the main problems which received attention for the first time to this extent was the problem of cancer in infants, children, and adolescents, because next to accidents, cancer is the leading cause of death between the ages of 1 and 14.

And this introduces my own interest, both in the field of pediatrics and in the field of cancer.

For some 32 years I have had the privilege of being a member of the Harvard Medical School teaching force and faculty and the staff of the Children's Hospital in Boston, and there we have benefited tremendously by the brainpower which has come to us in the form of young students and young doctors and fellows, interns, and residents, from many parts of the world. And in this opportunity of exchange of ideas and to see stimulation of minds which have come from all over the world, we see also an excellent example of what has made the National Institutes of Health grants program a great one. And that is that wherever one travels in this country, one finds brainpower, one finds men and women who are capable of doing very, very much more than they are now doing, if but the resources were made available. And what applies to our country applies to many countries in the world.

I can illustrate this, perhaps, the international nature of medical research, by mentioning a patient of 3 years of age who came to us about 6 weeks ago, a little girl 3 years of age, brought by her parents from Bombay. What motivates parents to leave a country on the advice of their doctors and travel 13,000 miles in 4 days because a child is sick? I think we can all understand that. But what was extraordinary about it, and what I would like to convey to you, is that the medicines which were used in the treatment of this child with disseminated cancer originated in research in which a man from India played a great role—Dr. Yellapragada Subba Rho, who could not find the facilities for work in his own country. He came here and enriched American science and American medicine, until he died some 10 years ago at the age of 52, where his death was brought on directly by his tremendous overwork. And he was one of the pioneers in the discovery of chemicals which act upon acute leukemia, chemicals which we are still using and that are being used the world over now, in the treatment of acute leukemia in children.

This is a turnabout. And what is sad here is that Dr. Subba Rho could not find in his own country the support which he needed, and the Dr. Subba Rhos, of India, and the world are badly in need of the kind of support which we hope this international institute will give.

Now, gentlemen, we know that it is in your minds—and I would like to simply acknowledge that I, too, am aware of this—that we are not talking about substituting moneys which come from the various countries of the world for the support of their own research. We are talking about the expansion of research of those men who are brilliant leaders or those men who have something new to offer, or those who can create new research programs. We are not talking about supporting pedestrian research.

And so, without substitution, I think what this program will mean will be a stimulation of support from other countries for their own research. I think that there is no question that we are going to make available to the scientists of other parts of the world that initial starting stimulus which will bring much greater progress in their own problems.

As part of my own training, I had the privilege of working at different times for almost 4 years in various European laboratories and clinics. I went there to learn languages, and I went there to take

advantage of the great minds and the great traditions in medicine. And I can say from that experience and from the experience of working with young men from those countries who have been coming here in such great numbers, particularly at the end of World War II, that there is no one country which alone can say that, "We have all of the brain power in science or in medicine."

In the field of cancer, with which I have been associated for these last 32 years, with greater effort since the end of World War II, I find that there are three great directions of research which are moving ahead very rapidly. The first is a search for a diagnostic test, which we still do not have. If we could but have a test that would be accurate, simple, easy to do, inexpensive to do, so that we could carry it out on the mass population as a whole, we could cut down the deaths from cancer by one-half overnight, with the techniques of treatment that we now have available.

Through the action of the Congress and the National Cancer Institute, a cooperative program of research has been established, since a year now, in a search for diagnostic tests which can carry out the requirement which I mentioned.

There is brain power in Great Britain, in France, in Germany, in the Scandinavian countries, and Italy, to mention just a few, which could add tremendously to this. This work is costly. There may be no results for many years. And it takes a particularly courageous, intelligent man in this field to go into it.

I think this is one area where we could help directly, and where we could help reduce the mortality from cancer very, very quickly if we could only be successful.

There is a second direction of research which is concerned with the relationship of viruses in cancer and the causation of cancer. There have been great contributions made recently in our own Cancer Institute in the National Institutes of Health. It is interesting here that the first important discovery was made in 1908 in Denmark by Ellerman and Bang, in the discovery that a filterable agent, not a cell, could cause the disease which is similar to leukemia in chickens, leukosis, fowl leukoses. This is one of the greatest economic problems, incidentally, among those who raise chickens in this country.

That marked the beginning of this whole area of viruses and cancer. And following this, there have been many important contributions in many countries, and one of them in New York City, by the great Payton Rouse, in 1911. The whole field had a rebirth about 10 years ago when a man who came originally from Poland, who worked at the Pasteur Institute in Paris, and then came to this country and landed finally in the veterans hospital in the Bronx, Dr. Ludwig Gross, succeeded in passing for the first time a cell-free material from one mouse to a susceptible newborn mouse. And this has opened up the whole field of the virus transmission of certain forms of cancer in man.

This was followed then by the beautiful work of Drs. Stewart and Eddy, two ladies at the National Institutes of Health, who took Dr. Gross' material and then were able to cause a whole series of tumors in susceptible mice, unrelated to leukemia.

Now, this has aroused the hope that if we could do this in man—and that evidence is not yet available; this has not yet been done—it might be possible to create a vaccine against cancer.

I want to emphasize that this is a hope. The evidence is not yet available for cancer in man, and it is perfectly possible that if there were such a vaccine it might act only against one form of cancer, and since cancer is 250 different and perhaps unrelated diseases, we might need 250 different vaccines. But it is also possible that some brilliant biochemist may go and find that there is a common chemical material which is present in all of these viruses, if viruses are connected with cancer, and that this common material may form the basis for a vaccine that may be used much more broadly, and have a much more broad spectrum.

Now, this is one direction of research that can be benefited directly, immediately, by the expansion of programs that we know about in France, in the Pasteur Institute, in Germany, in Great Britain, in Scandinavia, in Italy, in Japan. There are many other parts of the world where this kind of work can be done.

There is a third great direction of research in the field of cancer and that is this tremendous hunt for a chemical substance or a hormone or a chemical related to a hormone or an antibiotic which might destroy cancer.

You gentlemen are familiar with the greatest cooperative research program in the history of medicine in this country in peacetime. And this was instituted by action of the Congress through the National Cancer Institute in 1954. This concerns the chemotherapy program, this search for chemical compounds taken by mouth or injected into the body that might destroy cancer which we cannot remove by surgery or by radiotherapy because the tumor has spread too far.

Now, this program has had its greatest effect upon the cancer research in this country because of this support from the National Cancer Institute through the Congress. But research in the chemotherapy of cancer is not limited to the United States.

In England, since 1930 to my knowledge, there has been a program in the Chester Beatty Institute in London, one of the greatest cancer research institutes in the world. And from that institute there have come compounds which are in use in this country and all over the world against Hodgkins disease, chronic leukemia, many forms of cancer in different parts of the body. And this English institute, where many Americans have worked, continues to be one of the most productive institutions in the world in this field of chemotherapy of cancer.

In Japan we have had very important contributions, particularly in the field of antibiotics, in the search for molds taken from the ground which, under special laboratory conditions, can produce a material like penicillin, like aureomycin or terramycin, or any one of the antibiotics, but with one difference. Instead of having an effect against bacteria, these antibiotics have an effect on cancer.

There are two which led the field in the last number of years: one found in Germany by Deaumas and his group—and you will recall that Deaumas gave us the sulfonamides—and a second found in this country by Dr. Waxman, who is the great discoverer of streptomycin. He found this second biotic in 1940 and put it aside because it was too toxic and was not effective against bacteria. But 6 years ago it was possible to show that this antibiotic had a very striking effect against tumor in the mouse, and is now one of the most promising agents in experimental programs in the treatment of incurable cancer in man.

The Japanese have given us a number of these antibiotics. They have what might be called a green thumb for antibiotics, it seems. And certainly, from their research programs, something of great importance will emerge.

But their research programs are supported very inadequately. That is true of the important cancer research program in Italy, in France, in parts of Germany, in England, and in Scandinavia.

From Mexico there have come some of the most important work in the synthesis of steroid hormones, like cortisone, materials of that kind, and sex hormones. There are research programs in South America that are of great importance.

But from personal experience, I can say that the many programs I have mentioned are not only inadequate, but the research progress is slow, and the reason in all cases is lack of support, lack of equipment. The manpower is there, the brainpower is there, waiting only for the kind of help that every scientist requires.

I think, to accompany this magnificent program that the Congress has made possible in this country, we must expand the research in the same area of chemotherapy in the many areas of the world that are capable of doing this work.

I might add that Russia has entered this field in the last number of years and has a very extensive chemotherapy of cancer program, and we are told that China is now entering this field with whatever resources they have, but I have no personal knowledge of this.

It was 3 years ago, in May, that we held the first International Cancer Chemotherapy Congress Conference in Oslo. And through the initiative of the International Union Against Cancer, and with the help of the National Cancer Institute chemotherapy program here, some 30 representatives of the world in this field met in Oslo for 1 week. And, for the first time, Russia was present; with representatives from Hungary and Great Britain and Japan and the several European countries. And for 1 week we learned how to exchange ideas quickly in this field, and we managed to set up at that time a system of international communication of the results of research so that there would be no loss of time between discovery in one country and application to the patients dying of cancer in other countries.

I can think of no better mechanism for speeding up the means of communication or the results of research than through this International Institute of Medical Research as part of the NIH program.

I must stop at this point and not take any more of your time. It is quite obvious that those who are working in the various fields of research in this country, and who have knowledge of what is going on in the rest of the world, would speak in strong support of this.

This kind of support that we could give would match the brainpower and the resources presently available in the various parts of the world. And I think what we would have to offer would be that something that is essential for the expansion of work by men who are capable of making very great forward strides.

I am going to be guilty of indicating my age by quoting myself, with your permission. And on Monday of this week, before the International Pediatric Congress, I stated something which I was

able to formulate a year ago before the International Cancer Congress in London. And it was this:

Of one truth we can be certain, and here I reaffirm a belief long held. When the final control of cancer is achieved, there will be no one man, no one institution, no one country, responsible alone for this great victory. For in this great field, as in so many others, knowledge is universal, and what we are concerned with here stems from the efforts as well as the problems of the people of the world.

Thank you very much, Mr. Chairman and gentlemen.

Mr. ROBERTS. Dr. Farber, you speak from such extensive research and have covered the field in the world so well, that I think it is hard for us to ask you questions. We do appreciate your appearance.

One thing has occurred to me while you were talking. This subcommittee has been greatly concerned with this problem of increasing velocity in air pollution and in radioactive fallout. It occurred to me that this is beginning to be not only a problem in this country but was during the war in London accounting for many deaths through smog and so forth. I am wondering what you think we might accomplish in an attack on that particular problem through such a setup as you advocate in Senate Joint Resolution 41 and related bills.

Dr. FARBER. Mr. Chairman, you could not have selected a better example of the usefulness of this new International Institute, because the problem you mention has to be a universal one. Wherever there is air, wherever there is air pollution, and the carrying of materials from one part of the world to another, the problems are going to be the same. This is a matter of great concern to scientists and doctors in all countries. And I think that it is clear that one of the great contributions the Institute can make would be the setting up of a research program on a voluntary cooperative basis, which we found so useful in the field of cancer and other fields.

Mr. ROBERTS. I have been told by one of the most outstanding citizens in Washington that there have been instances which make the medical profession here very suspicious that radioactive fallout may be the cause of some types of bone cancer. They have actually shown up here in the District of Columbia area. Would you care to comment on that?

Dr. FARBER. The only answer I can give is that a suspicion of that kind demands the most careful investigation possible, and the assemblage of facts which can be analyzed by experts in the field. But with such a suspicion raised, we would be remiss in our duty if we did not investigate it with great care.

Mr. ROBERTS. Of course, I think you would agree that unless there is more chance of success in reaching some type of agreement with the Communists, we can expect nuclear testing to continue on both sides.

Dr. FARBER. I think that is the fact.

Mr. ROBERTS. One of our colleagues, the gentleman from Ohio, Mr. Schenck, has spent a lot of his time studying this question of hydrocarbons from automobile exhausts discharged into the atmosphere.

I think at one time you served as consultant to the Public Health Service, or perhaps you are a member of one of the National Advisory Councils at the present time.

Dr. FARBER. I have been a member of the National Advisory Cancer Council, and at present I am a member of the National Advisory Health Council.

Mr. ROBERTS. Would you care to comment on that problem?

Dr. FARBER. I am afraid that this is beyond my field of competence, and I would have to speak only secondhand. But this is one of the important areas which is being studied by the competent members of National Advisory Health Councils.

Mr. ROBERTS. I am sure I bespeak the sentiment of the committee when I say that we are deeply grateful to you for your testimony.

There may be questions by members of the subcommittee.

The gentleman from Pennsylvania.

Mr. RHODES. Mr. Chairman, I want to commend Dr. Farber for his most interesting statement.

As I listened to the witnesses this morning, it made me feel that it is a privilege to serve on this subcommittee, because of the many devoted and talented persons that come before us, and to know the good work that they are doing for this country and for humanity.

I have one final question in mind. I would like to ask—whether any interest is being taken, whether any work is being done, in regard to the exploding populations all over the world. Perhaps that contributes to the fact that half of the children of the world are suffering from starvation. How can we meet this challenge, which will become more serious in another generation or two?

Dr. FARBER. I agree with you, sir, that this is one of the most important problems to be solved. I could make suggestions as to how a research program could be set up to investigate it and to bring conclusions. I regret that I have no immediate solution.

Mr. ROBERTS. The gentleman from Florida.

Mr. ROGERS of Florida. Doctor, we have all appreciated your being here and making that very, very fine statement, which was most helpful. I wonder if you could tell us whether you feel funds have been sufficient for cancer research projects approved by your Council.

Dr. FARBER. I am very happy you asked that, sir. The funds this year, in fiscal 1959, are some \$5 million short of paying for the contracts approved by the contract subcommittee of the National Advisory Cancer Council. I serve on that subcommittee, and so I am familiar with the facts.

I should add that I am chairman of the Cancer Chemotherapy National Committee, and so this is the area in which I am working constantly.

The other areas in the National Cancer Institute are also deficient in funds, and only by putting over whatever could be put to next year, to fiscal 1960, have they been able to get through. But it has required a good deal of thought on the part of the splendid staff we have at the NCI, to arrange for the payment of grants which have been approved.

Mr. ROGERS of Florida. So that we are short, actually, in funds for approved projects in cancer research?

Dr. FARBER. Yes, indeed.

Mr. ROGERS of Florida. Thank you very much.

Mr. ROBERTS. I would like to go back to one thing that was in the early part of your testimony, Dr. Farber. You said that you had recently attended this international meeting in Montreal. I believe

you said it was the opinion of some of the experts—did I understand you to say that half the children of the world are suffering from malnutrition?

Dr. FARBER. Malnutrition, yes.

Mr. ROBERTS. That is quite a shocking revelation to me. Do you think that through the establishment of this new International Institute, you might be able to come up with some of the answers to this problem? I mean, it is a lack of food in these areas? Or is it a lack of knowledge, techniques, and knowledge of nutritional values, that seems to be the problem?

Dr. FARBER. As you know, sir, we can have starvation in the midst of plenty. And so what you imply is certainly the case. There are two parts to the problem. One is the availability of the proper foods. And so there is an economic side. But there is a very great medical aspect in the field of nutrition. And here our own scientists who have made such great strides in nutrition in this country, can be of help to other countries of the world, and the knowledge that they would gain in cooperating with doctors and scientists in countries where malnutrition is a great problem would be of great help to our own children here.

We do not have to go very far to find these problems. They exist in parts of the United States, where that kind of malnutrition that I have in mind is identical with what we might find in Mexico or South America or in Africa or parts of Asia.

Mr. ROBERTS. I was thinking about my own section of the country, where we used to hear a lot about pellagra, and we never hear anything more about it any more. What has happened?

Dr. FARBER. What happened was that the tremendous human and economic gains that came from the wiping out of pellagra came from medical research in the field of nutrition. By the addition of proper vitamins, and supplying the proper food, that horrible disease, which had an effect on all parts of the body and the brain, has been literally wiped out. And the effect on the economy of the States where pellagra was a problem is a striking one. The people who were thought to be mentally retarded, for example, were found to be as bright as anyone when they were given the adequate vitamin intake to prevent pellagra. This you have witnessed yourself, Mr. Chairman, I am sure.

Mr. ROBERTS. Yes, I certainly have. I remember when I was quite a bit younger that was quite a problem in our area, and then all of a sudden it disappeared, like many of the other things, typhoid and a good many other things.

We certainly appreciate your appearance. I am sorry that we have gone over into the noon hour and the meeting of the House Chamber.

(At 12:10 p.m., the hearing was adjourned.)